# Summary of
## Cotton Fiber and Processing Test Results

## CROP of 1984

U.S. DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Cotton Division June 1985

CONTENTS



TABLES

# SUMMARY OF COTTON FIBER AND PROCESSING TEST RESULTS
# CROP OF 1984

## INTRODUCTION

This report contains information on the fiber properties and spinning performance of cotton from major commercial production areas of the United States. Similar reports have been published annually since 1946.* These reports summarize and add supplemental information to the data published in biweekly reports which were titled "Cotton Fiber and Processing Test Results, Crop of 1984" and numbered 1 through 14.

The results of fiber and spinning tests made in connection with these annual surveys provide data for studies of the relationships between fiber properties, processing performance and product quality. The data is used to measure the effectiveness of the standards to be sure that they continue to reflect differences in utility. The biweekly reports enable merchants and manufacturers to use the results to locate sources of cotton to meet their specific requirements. Farmers and breeders may also use the data as a source of quality information regarding the various varieties of cottons produced under commercial growing conditions.

## SAMPLING PROCEDURES

The procedure for selecting samples for the 1984 survey was designed to provide test lots representing all major varieties in each of the territories served by Cotton Division Marketing Services Offices (MSO's). Variety selections were based on the predominant varieties planted in each MSO territory as reported by the Cotton Division in "Cotton Varieties Planted, 1984 Crop." A production area was selected to represent the leading variety and one to represent each of the other varieties with an expected production of 10,000 bales or more in each MSO territory. Additional areas were selected for those varieties with a production of over 200,000 bales. One additional production area was selected for each 200,000 bales or portion thereof in excess of the first 200,000 bales. Production areas with at least 70 percent of one variety were designated as that variety with no attempt made to maintain the purity of the variety except by selection of representative production areas. However, in some cases where there was an unusual interest in a particular variety and a low percentage was planted in the area, the MSO selected lots representing 100 percent of the variety. The locations of the 98 production areas selected for the 1984 survey are shown in Figure 1.

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*Copies of past summary reports may be obtained from the Testing Section, Cotton Division, AMS, USDA, P.O. Box 67, Clemson, SC 29631, until supplies are exhausted.

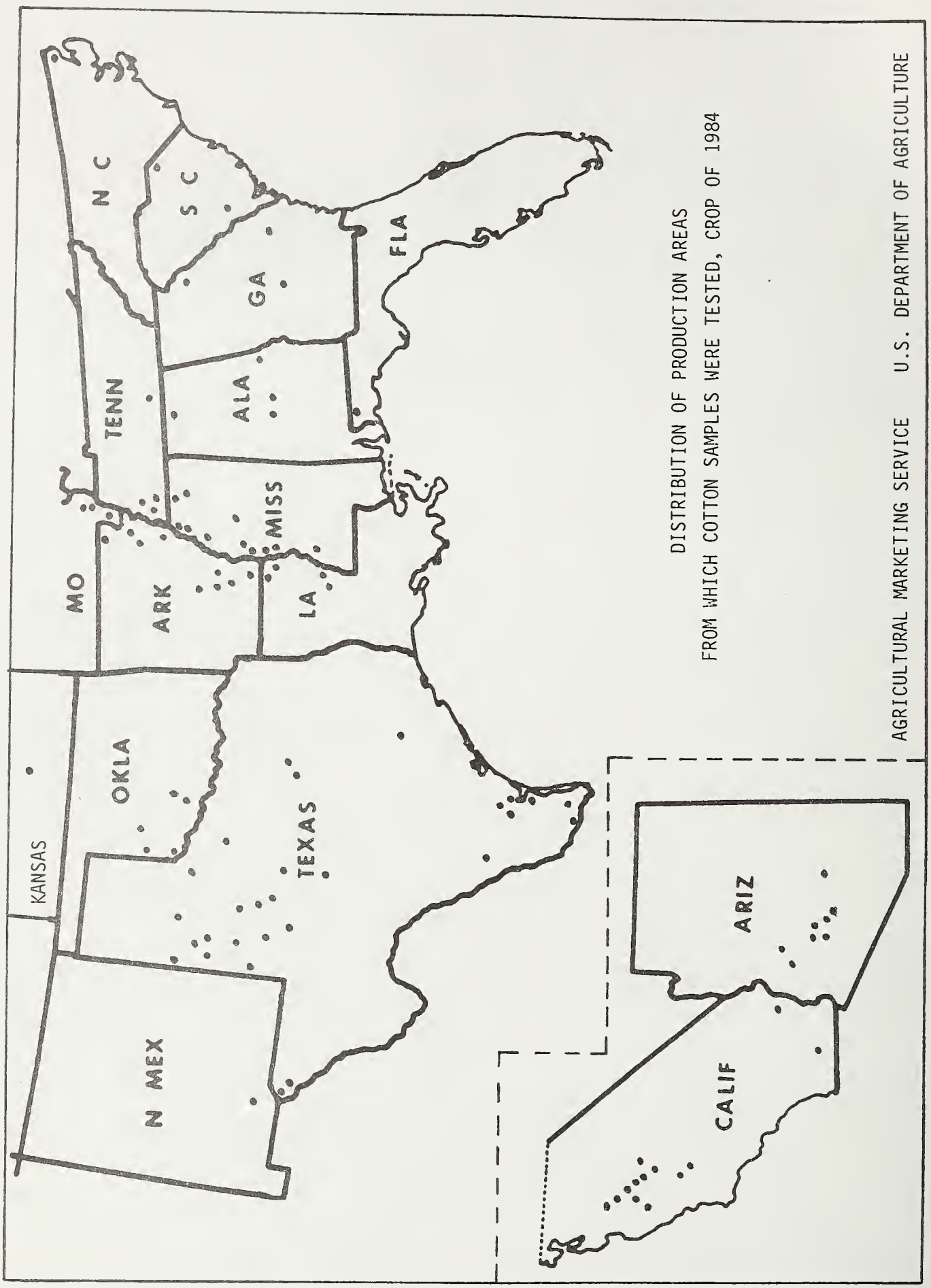


Figure 1. Location of production areas selected for the 1984 survey.

Two test lots were collected from each production area during the harvest season. Lots were selected to represent the predominant grade and staple being classed at the time of collection. For the most part, these areas produce the specified qualities in quantities large enough to enable buyers to obtain lots of even-running grade and staple. Obviously, other qualities of cotton are available in each area as a result of normal seasonal, soil, harvesting and other variations. Most production areas also produce cotton of varieties other than those included in these tests.

Each spinning lot used in this study was made up of 20 to 30 samples of the same grade and staple length from bales classed for growers under the Smith-Doxey Act. These even-running lots of samples were then tested at the Cotton Division's Fiber and Spinning Laboratory located in Clemson, South Carolina. While this method of collecting samples does not provide data for all qualities in the crop, it does provide average test results for those qualities in largest supply during the collection period.

## LABORATORY PROCEDURES

Fiber and spinning tests were performed under standardized procedures at the Cotton Division's Fiber and Spinning Laboratory in Clemson, S.C. Most of the fiber tests were performed in the standard atmospheric conditions of 65 percent relative humidity and temperature of 70 degrees Fahrenheit. Standard test procedures as outlined by the American Society for Testing and Materials (ASTM) were used in making tests. Tests not covered by ASTM were performed using commonly accepted procedures as recommended by the instrument manufacturer. Five subsamples were taken at random from each spinning lot to provide representative specimens for the fiber tests.

Yarn processing or spinning tests were performed by a technique developed in the Cotton Division laboratories for processing small lots of cotton on standard-type textile machines. The samples in each lot were thoroughly composited by hand-mixing before being fed to the first process picker. This hand-mixing is similar to the machine-mixing normally obtained in cotton textile opening equipment. Observations were made at each process to measure processing behavior and the yarns produced were tested to measure product quality.

On the basis of average past performance, cottons were grouped according to the expected staple length for the specified variety. All cottons of the specified variety were spun in the same manner, regardless of difference in staple length. This was done so that direct comparisons of different lots of cotton within a specified variety could be made. These samples were carded at specified production rates and spun into numbers that reflect the manufacturing values of the varieties tested. In general, the rate of carding and yarn numbers from the 1984 crop are as follows:

Group 1 - Short staple cottons, carded at 12-1/2 pounds per hour and spun into carded 8s and 22s yarns with a twist multiplier of 4.40 plus a carded yarn spinning potential test for all lots. This includes varieties which normally produce staple lengths 31/32 inch and shorter.

Group 2 - Medium staple cottons, carded at 9-1/2 pounds per hour and spun into carded 22s and 50s yarn with a twist multiplier of 4.00 plus a carded yarn spinning potential test for all lots. This group includes varieties which normally produce cottons from 1 inch through 1-3/32 inches staple length.

Group 3 - Long staple cottons, carded at 6-1/2 pounds per hour and spun into both carded and combed 22s and 50s yarns with a twist multiplier of 3.80 plus a carded yarn spinning potential test for all lots. This group includes upland varieties which normally produce cottons from 1-1/8 inches through 1-1/4 inches in staple length.

Group 4 - Extra long staple cottons, carded at 4-1/2 pounds per hour and spun into combed 50s and 80s yarns with a twist multiplier of 3.60. This group includes all American Pima and American upland extra long staple varieties which are usually 1-5/16 inches or longer in staple length.

## DISCUSSION OF TEST RESULTS

### U.S. Average - Upland Cotton

One hundred and ninety-eight spinning lots of short, medium and long staple cottons were tested from the 1984 cotton crop compared to 154 from the 1983 crop. Fiber test results showed the 1984-crop upland cottons to be longer, finer,and less mature than those tested the year before. HVI fiber strength was higher while Stelometer 1/8 in. gage strength was about the same as a year ago. Both Shirley Analyzer non-lint content and picker and card waste were unchanged from levels of a year earlier. Sugar content was 0.08 percentage points higher. Yarns spun from these 198 spinning lots had the same average skein strength as a year earlier. Yarn appearance grades were slightly higher as was the average spinning potential number. The number of neps per 1000 yards was higher in yarns produced from 1984 upland cottons.

### Group 1 - Short Staple Cottons

A total of 35 short staple samples were tested this season compared to 27 last year. These short staple cottons were slightly longer with a lower average mike. FMT fineness and FMT maturity ratio were lower than last season. HVI 1/8-inch gage fiber strength was higher while Stelometer strength remained the same. Sugar tests on the 35 samples averaged higher this season. Non-lint content and machine waste were both higher. Yarn skein strength was higher while yarn appearance grades were lower. The average spinning potential number of these short staple samples was higher than the average number for 1983-crop samples.

### Group 2 - Medium Staple Cottons

One hundred and sixty-one medium staple spinning lots were tested from the 1984 cotton crop compared to 123 a year earlier. These medium staple lots were longer, finer, and less mature than their counterparts from the previous season. Both HVI fiber strength and sugar content were higher. Non-lint content and machine waste were at about the same level as a year ago. Yarn skein strength for the 161 medium staple samples averaged 106 pounds, the same as a year ago. Yarn appearance grades averaged slightly higher than last season's, while there was an increase in the number of yarn neps.

The Southeastern production area include the states of North Carolina, South Carolina, Georgia, Alabama, and this year, Florida. A total of 22 lots were tested from the 1984 crop, an increase of 6 lots over the 1983 total. Fiber tests showed these medium staple cottons were longer and slightly stronger compared to the previous year. Fibers were finer and had a lower maturity ratio than in 1983. Sugar content was higher. Non-lint content averaged 2.9 percent compared to 3.0 percent a year ago. Yarns spun from these medium staple cottons were stronger with higher average appearance grades than in the previous season. The spinning potenial yarn number for this season was 63, an increase of 7 over last season.

Tennessee, Missouri, Arkansas, Lousiana, and Mississippi make up the South Central area. A total of 62 medium staple spinning lots were received this year from the South Central area compared to 48 from the 1983 crop. Fiber length increased, while the average micronaire declined. Both FMT fineness and maturity ratio averaged lower than in the previous year. Stelometer 1/8 in. gage strength indicated these samples were weaker. Picker and card waste was higher while the yarn skein strength of these medium staple cottons was lower. Yarn appearance grades were lower this season and the average nep count was higher. The average spinning potential number was 53 compared to last year's average of 59.

The Southwestern production area is made up of Oklahoma, Kansas and all of Texas except the far western counties served by the El Paso Marketing Services Office. A total of 31 medium staple lots were tested from the 1984 cotton crop compared to 28 from the 1983 crop. Fiber tests showed the 1984-crop cottons to be slightly shorter but stronger than in the previous season. The fibers had a lower average mike reading and a higher sugar content than a year ago. Shirley Analyzer non-lint content remained the same, while picker and card waste was lower. Yarns spun from these 31 medium staple cottons had an average skein strength of 98 pounds, unchanged from last season. Yarn appearance grades were higher, and yarn neps were lower.

The states of Arizona, California, New Mexico and the far western counties of Texas are included in the Western area. Forty-six spinning lots were tested this season compared to 31 a year ago. These medium staple cottons were longer with the same average micronaire reading. Fiber strength was higher. Sugar tests showed the sugar content to be higher this season. Shirley Analyzer non-lint content was lower. Yarn skein strength averaged higher compared to a year earlier, while appearance grades were also higher. The average number of neps from these Western area cottons increased this season. The average spinning potential was higher.

## Group 3 - Long Staple Cottons

Only two samples of long staple cottons were tested this season, and they were both from the Western area. This compared with four lots tested one year ago. Fiber tests showed these two lots to be longer, finer, and stronger than a year earlier. Picker and card waste was lower while yarn skein strength was higher than a year earlier. The average number of yarn neps was lower. The spinning potential was higher.

## Group 4 - Extra Long Staple Cottons

One dozen spinning lots were tested this season compared to eleven lots from the 1983 cotton crop. These extra long staple samples were slightly shorter with the same average mike. The maturity ratio was slightly higher, while fiber strength was lower. Non-lint content was 3.1 percent compared to 3.4 percent a year ago. Picker and card waste remained the same as in the previous season. Yarns spun from these American Pima cottons had slightly higher skein strength and appearance grades.

## DESCRIPTION OF TABLES

Most of the tables are in two parts located on facing pages. The first page shows fiber measurements and the next, primarily yarn measurements. Using Table 5 as an example, the first spinning lot is from Aquilla, Texas. The fiber measurements are on page 26. The yarn measurements for that same lot are on the following page.

### TABLE 1

Shown in Table 1 (page 12) are averages for fiber and processing test results from selected gin points for the 1983 and 1984 cotton crops. These data are grouped by staple and area.

### TABLE 2

Table 2 shows the fiber and carded yarn properties by area, staple and state for the 1983 and 1984 crops. The "coarse" and "fine" headings in this table refer to different size yarns according to the staple group.

### TABLE 3

Beginning on page 20, Table 3 shows 1984 crop data by staple group, area, grade and staple. For statistical purposes, only grade and staple combinations with three or more lots are reported.

### TABLE 4

Table 4 gives fiber and yarn test results by variety from selected gin points. As indicated in the section on sampling procedures, the production areas selected must have at least 70 percent of one particular variety in order to be selected. In some cases a production area will be a 100 percent or "pure" variety gin. Test data for the pure varieties are presented in Table 4 to provide as meaningful information as possible for specific varieties.

### TABLES 5 THROUGH 8

These tables show test results on individual spinning lots from each production area. Results on short, medium, long and extra long staple groups are given in Tables 5, 6, 7 and 8, respectively. Spinning results on short staple cottons spun on an open-end spinning frame are shown in Table 5a.

## TABLE 9

Table 9 gives the means and standard deviations for all test results by staple group. Data not reported in this summary is indicated by either a blank space or a dash (-) in place of the data. For instance, on page 64 of Table 9 there is no combed yarn data under short or medium staple groups. This summary does not report combed yarn data for these staple groups.

## TABLES 10, 10A AND 11

These tables show the results of simple correlation analyses for fiber and processing tests. An explanation of simple correlations is contained in the section on "Description of Statistics Used in Analysis," page 76. To look up a particular correlation, find one of the variables in question in the heading and then read down the left margin until the second variable is located. The simple correlation coefficient is given at the intersection (i.e., the column and row intersection).

## TABLES 12, 12A AND 13

A complete explanation of the multiple regression technique is given in the section, "Description of Statistics Used in Analysis," page 76.

Regression equations for estimating spinning performance and yarn quality (dependent variables) from fiber test measurements (independent variables) are shown in Tables 12, 12A and 13. A set of regression statistics were calculated for four groups or combinations of independent variables. These statistics were calculated for each of our eleven dependent variable.

The four groups of independent variables are:

(1) Grade, Staple and Mike.

(2) Grade, UHM Length, M/UHM Uniformity, Micronaire, and HVI 1/8-Inch Gage Strength.

(3) Grayness (Rd), Yellowness (+b), Trash Grade, UHM Length, M/UHM Uniformity, Micronaire, and HVI 1/8-Inch Gage Strength.

(4) Grayness (Rd), Yellowness (+b), Non-lint Content, UHM Length, M/UHM Uniformity, Micronaire, Stelometer 1/8-Inch Gage Strength, Stelometer Elongation, FMT Fineness, FMT Maturity, and Sugar Content.

The statistics needed to predict the total picker and card waste for medium staple cotton from HVI measurements for length, uniformity, strength and mike plus the classer's grade are on page 74. This page shows the regression statistics for both the combination of grade, staple and mike and the combination of grade plus HVI measurements. The statistics for the second combination (grade plus HVI measurements) are on the botton half of the page. Find the column under dependent variables called "Picker and Card Waste" (first column).

The statistics are:

| | |
|---|---|
| R-Square | 0.39 |
| Constant (a) | +17.91 |
| b's for: | |
| Grade | -0.07 |
| UHM Length | -4.37 |
| M/UHM Uniformity | +0.01 |
| Micronaire | -0.11 |
| HVI 1/8" Gage Strength | -0.01 |
| Standard Error of Estimate | 0.96 |

These statistics give a regression equation of:

$$\left.\begin{matrix}\text{Total}\\ \text{Picker \& Card}\\ \text{Waste}\end{matrix}\right\} = +17.91 - 0.07(\text{Grade}) - 4.37(\text{UHM Length}) + 0.01(\text{M/UHM Uniformity}) - 0.11(\text{Micronaire}) - 0.01(\text{HVI 1/8" Gage Strength})$$

The standard error of the estimate is 0.96 with an $R^2$ of 0.39. The $R^2$ indicates that 39 percent of the variation in picker and card waste can be explained by grade and the HVI measurements for length, uniformity, strength and micronaire.

TABLE 14

This table gives the standard machine settings and laboratory atmospheric conditions for each phase of yarn processing used in these tests. The data is grouped by staple lengths.

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TABLE 1.--COTTON, AVERAGE RESULTS OF CLASSIFICATION, FIBER, AND PROCESSING TESTS FROM SELECTED GIN POINTS IN THE UNITED STATES, CROPS OF 1983 AND 1984.

| AREA AND CROP YEAR | NO. OF LOTS | FIBER TEST RESULTS | | | | | | | | | | | PROCESSING TESTS RESULTS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | HIC-SHIRLEY FINENESS MATURITY | | FIBER STRENGTH | | S.A. NON-LINT | SUGAR CONTENT | PICKER & CARD WASTE | SKEIN STR. 22s | YARN APPEAR. 22s | YARN NEPS 22s | SPY |
| | | GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL.* | | | | | | | |
| | NO. | INDEX | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | PCT. | LBS. | INDEX | NO. | NO. |
| SHORT STAPLE - AMERICAN UPLAND | | | | | | | | | | | | | | | | | |
| 1983 | 27 | 84 | 31.2 | 0.95 | 79 | 40 | 157.5 | 0.923 | 23.1 | 21.7 | 3.7 | 0.18 | 7.1 | 92 | 101 | 120 | 42 |
| 1984 | 35 | 86 | 31.3 | 0.96 | 79 | 33 | 153.1 | 0.765 | 24.1 | 21.7 | 4.4 | 0.29 | 7.6 | 94 | 97 | 122 | 46 |
| MEDIUM STAPLE - AMERICAN UPLAND | | | | | | | | | | | | | | | | | |
| SOUTHEAST | | | | | | | | | | | | | | | | | |
| 1983 | 16 | 91 | 34.9 | 1.08 | 81 | 45 | 180.7 | 0.981 | 25.4 | 23.4 | 3.0 | 0.19 | 6.6 | 102 | 99 | 148 | 56 |
| 1984 | 22 | 92 | 35.5 | 1.10 | 80 | 41 | 170.7 | 0.887 | 25.9 | 23.5 | 2.9 | 0.32 | 6.3 | 109 | 105 | 123 | 63 |
| SOUTH CENTRAL | | | | | | | | | | | | | | | | | |
| 1983 | 48 | 93 | 35.0 | 1.09 | 81 | 44 | 181.2 | 0.970 | 25.4 | 23.6 | 2.9 | 0.25 | 6.7 | 106 | 105 | 99 | 59 |
| 1984 | 62 | 87 | 35.7 | 1.12 | 80 | 41 | 171.3 | 0.866 | 25.4 | 22.0 | 3.1 | 0.23 | 6.9 | 97 | 102 | 131 | 53 |
| SOUTHWEST | | | | | | | | | | | | | | | | | |
| 1983 | 28 | 85 | 33.8 | 1.03 | 80 | 41 | 169.6 | 0.901 | 23.9 | 22.3 | 3.9 | 0.22 | 7.6 | 98 | 97 | 112 | 50 |
| 1984 | 31 | 90 | 32.8 | 1.02 | 79 | 35 | 156.4 | 0.807 | 24.9 | 22.9 | 3.9 | 0.37 | 7.4 | 98 | 104 | 108 | 52 |
| WEST | | | | | | | | | | | | | | | | | |
| 1983 | 31 | 95 | 35.7 | 1.11 | 81 | 43 | 174.1 | 0.948 | 27.2 | 25.4 | 2.4 | 0.24 | 6.0 | 117 | 99 | 150 | 65 |
| 1984 | 46 | 99 | 36.0 | 1.14 | 81 | 43 | 169.2 | 0.960 | 28.9 | 26.1 | 2.3 | 0.34 | 5.7 | 121 | 103 | 188 | 69 |
| U. S. AVERAGE MEDIUM STAPLE | | | | | | | | | | | | | | | | | |
| 1983 | 123 | 91 | 34.9 | 1.08 | 80 | 43 | 176.7 | 0.950 | 25.5 | 23.7 | 3.0 | 0.23 | 6.7 | 106 | 101 | 121 | 58 |
| 1984 | 161 | 92 | 35.2 | 1.10 | 80 | 40 | 167.7 | 0.884 | 26.4 | 23.6 | 3.0 | 0.30 | 6.6 | 106 | 103 | 142 | 59 |

* STELOMETER 1/8-INCH GAGE FIBER STRENGTH RESULTS WERE ADJUSTED TO THE PRESSLEY LEVEL BY THE USE OF CALIBRATION COTTONS.

TABLE 1.--CONTINUED

| AREA AND CROP YEAR | NO. OF LOTS | FIBER TEST RESULTS | | | | | | | | | | | | PROCESSING TESTS RESULTS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | HIC-SHIRLEY FINENESS MATURITY | | FIBER STRENGTH | | S.A. NON-LINT | SUGAR CONTENT | PICKER & CARD WASTE | SKEIN STR. 22s | YARN APPEAR. 22s | YARN NEPS 22s | SPY |
| | | GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL.* | | | | | | | |
| | NO. | INDEX | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | PCT. | LBS. | INDEX | NO. | NO. |
| LONG STAPLE - AMERICAN UPLAND | | | | | | | | | | | | | | | | | |
| WEST | | | | | | | | | | | | | | | | | |
| 1983 | 2 | 90 | 38.0 | 1.19 | 83 | 41 | 167.0 | 0.937 | 29.0 | 29.5 | 5.0 | 0.27 | 8.7 | 145 | 100 | 179 | 99 |
| 1984 | 2 | 94 | 37.5 | 1.17 | 82 | 36 | 139.7 | 0.895 | 27.2 | 26.9 | 2.4 | 0.34 | 7.5 | 136 | 100 | 80 | 94 |
| U. S. AVERAGE LONG STAPLE | | | | | | | | | | | | | | | | | |
| 1983 | 4 | 90 | 35.8 | 1.12 | 81 | 39 | 161.2 | 0.925 | 26.5 | 25.8 | 4.1 | 0.23 | 8.2 | 121 | 98 | 126 | 74 |
| 1984 | 2 | 94 | 37.5 | 1.17 | 82 | 36 | 139.7 | 0.895 | 27.2 | 26.9 | 2.4 | 0.34 | 7.5 | 136 | 100 | 80 | 94 |
| U.S. UPLAND AVERAGE | | | | | | | | | | | | | | | | | |
| 1983 | 154 | 90 | 34.3 | 1.06 | 80 | 43 | 172.9 | 0.945 | 25.1 | 23.4 | 3.2 | 0.22 | 6.8 | 104 | 101 | 121 | 56 |
| 1984 | 198 | 91 | 34.6 | 1.08 | 80 | 39 | 164.9 | 0.863 | 26.0 | 23.3 | 3.2 | 0.30 | 6.8 | 104 | 102 | 138 | 57 |
| EXTRA LONG STAPLE - AMERICAN PIMA | | | | FIBROGRAPH | | | | | | | | | 50s COMBED YARN DATA | | | | COMBER WASTE (PCT.) |
| | | | | 2.5% SPAN | 50/2.5 UNIF | | | | | | | | | | | | |
| 1983 | 11 | 4 | 46.0 | 1.33 | 48 | 41 | 147.4 | 0.963 | - | 34.8 | 3.4 | 0.18 | 7.4 | 66 | 118 | 89 | 14.0 |
| 1984 | 12 | 4 | 46.0 | 1.32 | 47 | 41 | 153.2 | 0.972 | - | 34.1 | 3.1 | 0.22 | 7.4 | 67 | 122 | 88 | 15.5 |

* STELOMETER 1/8-INCH GAGE FIBER STRENGTH RESULTS WERE ADJUSTED TO THE PRESSLEY LEVEL BY THE USE OF CALIBRATION COTTONS.

TABLE 2.--COTTON: AVERAGE RESULTS OF CLASSIFICATION, FIBER TESTS, AND CARDED YARN PROCESSING TESTS BY AREA, STAPLE AND STATE FOR AMERICAN UPLAND SAMPLES FROM SELECTED GIN POINTS, CROPS OF 1983 AND 1984.

| AREA, STAPLE GROUP, STATE AND CROP YEAR | NO. OF LOTS | CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| | NO. | INDEX | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| SOUTHEAST | | | | | | | | | | | | | | | |
| MEDIUM STAPLE | | | | | | | | | | | | | | | |
| ALABAMA | | | | | | | | | | | | | | | |
| 1983 | 6 | 92 | 34.5 | 1.07 | 82 | 48 | 191.4 | 1.012 | 25.7 | 23.2 | 6.5 | 75.3 | 8.6 | 31-3 | 0.20 |
| 1984 | 8 | 96 | 35.5 | 1.11 | 80 | 44 | 178.7 | 0.921 | 26.4 | 24.0 | 6.3 | 77.0 | 8.5 | 31-1 | 0.33 |
| FLORIDA | | | | | | | | | | | | | | | |
| 1983* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 2 | 94 | 35.0 | 1.09 | 80 | 43 | 159.9 | 0.983 | 25.2 | 23.1 | 6.0 | 75.8 | 8.4 | 31-4 | 0.35 |
| GEORGIA | | | | | | | | | | | | | | | |
| 1983 | 6 | 90 | 35.2 | 1.08 | 80 | 45 | 181.3 | 0.980 | 25.8 | 23.7 | 5.4 | 73.1 | 8.7 | 41-3 | 0.17 |
| 1984 | 6 | 92 | 35.2 | 1.08 | 80 | 42 | 172.6 | 0.877 | 25.2 | 23.3 | 6.1 | 74.4 | 8.2 | 41-3 | 0.32 |
| NORTH CAROLINA | | | | | | | | | | | | | | | |
| 1983 | 2 | 94 | 35.5 | 1.11 | 81 | 38 | 159.2 | 0.923 | 24.5 | 23.5 | 5.8 | 73.5 | 9.0 | 41-3 | 0.18 |
| 1984 | 2 | 87 | 36.0 | 1.13 | 81 | 37 | 167.2 | 0.834 | 26.3 | 23.5 | 6.2 | 70.0 | 8.0 | 51-3 | 0.34 |
| SOUTH CAROLINA | | | | | | | | | | | | | | | |
| 1983 | 2 | 85 | 35.0 | 1.07 | 80 | 42 | 168.4 | 0.950 | 24.0 | 23.0 | 5.7 | 70.8 | 9.5 | 42-1 | 0.26 |
| 1984 | 4 | 84 | 35.8 | 1.11 | 80 | 38 | 159.0 | 0.813 | 26.4 | 23.4 | 6.4 | 74.0 | 8.5 | 41-3 | 0.27 |
| SOUTH CENTRAL | | | | | | | | | | | | | | | |
| MEDIUM STAPLE | | | | | | | | | | | | | | | |
| ARKANSAS | | | | | | | | | | | | | | | |
| 1983 | 18 | 92 | 35.1 | 1.10 | 81 | 45 | 180.7 | 0.978 | 25.7 | 23.8 | 5.6 | 75.2 | 8.4 | 31-4 | 0.27 |
| 1984 | 18 | 85 | 36.1 | 1.13 | 80 | 41 | 173.3 | 0.866 | 25.6 | 22.1 | 6.1 | 71.5 | 8.4 | 41-4 | 0.20 |
| LOUISIANA | | | | | | | | | | | | | | | |
| 1983 | 6 | 95 | 35.2 | 1.10 | 81 | 46 | 195.2 | 0.947 | 25.2 | 23.8 | 5.9 | 77.5 | 8.1 | 31-1 | 0.26 |
| 1984 | 8 | 90 | 35.8 | 1.13 | 80 | 42 | 176.9 | 0.911 | 25.6 | 22.5 | 5.7 | 73.3 | 8.2 | 41-3 | 0.26 |

*NO COMPARABLE DATA.

TABLE 2.--CONTINUED

| AREA, STAPLE GROUP, STATE AND CROP YEAR | NO. OF LOTS | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| | | VISIBLE WASTE | TOTAL WASTE | | COARSE | FINE | BR. FACTOR | COARSE | FINE | COARSE | FINE | COARSE | FINE | |
| | NO. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| SOUTHEAST | | | | | | | | | | | | | | |
| MEDIUM STAPLE | | | | | | | | | | | | | | |
| ALABAMA | | | | | | | | | | | | | | |
| 1983 | 6 | 2.0 | 2.8 | 6.4 | 100 | 33 | 1913 | 5.7 | 4.3 | 100 | 73 | 124 | 569 | 55 |
| 1984 | 8 | 1.1 | 1.9 | 6.2 | 108 | 35 | 2066 | 6.5 | 4.7 | 105 | 75 | 120 | 867 | 61 |
| FLORIDA | | | | | | | | | | | | | | |
| 1983* | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 2 | 1.9 | 3.2 | 6.7 | 107 | 35 | 2040 | 6.8 | 5.0 | 100 | 70 | 149 | 971 | 60 |
| GEORGIA | | | | | | | | | | | | | | |
| 1983 | 6 | 2.0 | 3.0 | 6.8 | 102 | 34 | 1964 | 5.6 | 4.1 | 100 | 68 | 164 | 589 | 55 |
| 1984 | 6 | 2.1 | 2.9 | 5.9 | 108 | 35 | 2058 | 6.3 | 4.7 | 108 | 80 | 97 | 749 | 62 |
| NORTH CAROLINA | | | | | | | | | | | | | | |
| 1983 | 2 | 1.7 | 2.6 | 5.9 | 109 | 37 | 2112 | 6.0 | 4.3 | 95 | 70 | 133 | 491 | 68 |
| 1984 | 2 | 3.0 | 4.2 | 6.8 | 116 | 40 | 2264 | 6.9 | 5.4 | 100 | 80 | 111 | 603 | 73 |
| SOUTH CAROLINA | | | | | | | | | | | | | | |
| 1983 | 2 | 3.1 | 4.3 | 7.5 | 99 | 32 | 1884 | 5.6 | 4.1 | 100 | 60 | 187 | 754 | 52 |
| 1984 | 4 | 3.0 | 4.3 | 6.7 | 108 | 36 | 2088 | 6.6 | 4.8 | 105 | 73 | 162 | 868 | 65 |
| SOUTH CENTRAL | | | | | | | | | | | | | | |
| MEDIUM STAPLE | | | | | | | | | | | | | | |
| ARKANSAS | | | | | | | | | | | | | | |
| 1983 | 18 | 2.2 | 3.0 | 6.9 | 108 | 38 | 2126 | 5.8 | 4.4 | 104 | 78 | 94 | 471 | 59 |
| 1984 | 18 | 1.7 | 3.1 | 6.7 | 95 | 31 | 1830 | 6.0 | 4.7 | 102 | 68 | 124 | 1004 | 53 |
| LOUISIANA | | | | | | | | | | | | | | |
| 1983 | 6 | 2.1 | 2.9 | 6.3 | 106 | 36 | 2056 | 5.8 | 4.4 | 102 | 68 | 94 | 521 | 58 |
| 1984 | 8 | 1.7 | 2.8 | 6.4 | 100 | 33 | 1915 | 6.1 | 4.3 | 100 | 68 | 119 | 985 | 56 |

*NO COMPARABLE DATA.

TABLE 2.-- CONTINUED

| AREA, STAPLE GROUP, STATE AND CROP YEAR | NO. OF LOTS | CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| | NO. | INDEX | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| SOUTH CENTRAL | | | | | | | | | | | | | | | |
| MEDIUM STAPLE | | | | | | | | | | | | | | | |
| MISSISSIPPI | | | | | | | | | | | | | | | |
| 1983 | 18 | 92 | 35.2 | 1.09 | 81 | 42 | 173.6 | 0.963 | 25.5 | 23.7 | 6.2 | 75.6 | 8.3 | 31-2 | 0.21 |
| 1984 | 22 | 86 | 35.6 | 1.12 | 79 | 39 | 165.1 | 0.851 | 25.0 | 21.8 | 6.4 | 71.7 | 8.5 | 41-4 | 0.26 |
| MISSOURI | | | | | | | | | | | | | | | |
| 1983* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 6 | 86 | 36.2 | 1.12 | 80 | 44 | 179.8 | 0.902 | 26.4 | 23.0 | 6.0 | 69.9 | 8.7 | 41-4 | 0.19 |
| TENNESSEE | | | | | | | | | | | | | | | |
| 1983 | 6 | 93 | 34.2 | 1.05 | 81 | 47 | 191.6 | 0.992 | 24.5 | 22.8 | 5.3 | 75.2 | 9.0 | 31-4 | 0.29 |
| 1984 | 8 | 87 | 35.0 | 1.07 | 80 | 39 | 172.1 | 0.836 | 25.5 | 21.6 | 6.5 | 72.1 | 8.7 | 41-3 | 0.19 |
| SOUTHWEST | | | | | | | | | | | | | | | |
| SHORT STAPLE | | | | | | | | | | | | | | | |
| CENTRAL TEXAS | | | | | | | | | | | | | | | |
| 1983 | 4 | 87 | 31.0 | 0.94 | 79 | 42 | 164.8 | 0.970 | 21.5 | 20.3 | 5.6 | 71.1 | 9.8 | 42-1 | 0.19 |
| 1984 | 4 | 96 | 30.8 | 0.95 | 80 | 42 | 174.8 | 0.922 | 21.4 | 21.7 | 6.2 | 76.2 | 9.7 | 21-4 | 0.38 |
| KANSAS | | | | | | | | | | | | | | | |
| 1983* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 2 | 68 | 33.5 | 1.04 | 76 | 28 | 136.2 | 0.689 | 24.0 | 21.1 | 5.9 | 61.7 | 12.0 | 54-1 | 0.33 |
| NORTHWEST TEXAS | | | | | | | | | | | | | | | |
| 1983 | 19 | 84 | 31.2 | 0.95 | 79 | 40 | 158.1 | 0.906 | 23.6 | 22.1 | 6.5 | 70.9 | 9.9 | 42-1 | 0.18 |
| 1984 | 23 | 85 | 31.3 | 0.96 | 79 | 32 | 149.0 | 0.728 | 25.0 | 22.0 | 7.1 | 74.7 | 8.9 | 31-4 | 0.27 |
| OKLAHOMA | | | | | | | | | | | | | | | |
| 1983 | 4 | 82 | 31.3 | 0.95 | 79 | 39 | 147.0 | 0.961 | 22.5 | 21.5 | 5.4 | 68.5 | 9.4 | 42-2 | 0.18 |
| 1984 | 4 | 83 | 31.0 | 0.96 | 80 | 38 | 165.9 | 0.812 | 23.2 | 20.6 | 7.0 | 69.9 | 9.6 | 42-1 | 0.17 |
| SOUTH TEXAS | | | | | | | | | | | | | | | |
| 1983* | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 2 | 100 | 32.0 | 1.00 | 78 | 35 | 147.6 | 0.858 | 22.1 | 21.4 | 6.3 | 79.1 | 9.5 | 11-4 | 0.48 |

*NO COMPARABLE DATA.

TABLE 2.--CONTINUED

| AREA, STAPLE GROUP, STATE AND CROP YEAR | NO. OF LOTS | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| | | VISIBLE WASTE | TOTAL WASTE | | COARSE | FINE | BR. FACTOR | COARSE | FINE | COARSE | FINE | COARSE | FINE | |
| | NO. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| SOUTH CENTRAL | | | | | | | | | | | | | | |
| MEDIUM STAPLE | | | | | | | | | | | | | | |
| MISSISSIPPI | | | | | | | | | | | | | | |
| 1983 | 18 | 2.0 | 2.8 | 6.6 | 108 | 37 | 2108 | 6.0 | 4.6 | 104 | 73 | 117 | 574 | 63 |
| 1984 | 22 | 1.9 | 3.2 | 7.2 | 96 | 30 | 1813 | 6.2 | 4.7 | 101 | 66 | 158 | 986 | 53 |
| MISSOURI | | | | | | | | | | | | | | |
| 1983* | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 6 | 2.1 | 3.2 | 6.9 | 102 | 33 | 1945 | 6.1 | 4.6 | 105 | 73 | 108 | 919 | 57 |
| TENNESSEE | | | | | | | | | | | | | | |
| 1983 | 6 | 1.8 | 2.7 | 6.8 | 95 | 29 | 1764 | 5.2 | 3.8 | 112 | 75 | 63 | 423 | 47 |
| 1984 | 8 | 1.8 | 3.1 | 6.9 | 94 | 30 | 1775 | 6.3 | 4.5 | 104 | 70 | 104 | 850 | 49 |
| SOUTHWEST | | | | | | | | | | | | | | |
| SHORT STAPLE | | | | | | | | | | | | | | |
| CENTRAL TEXAS | | | | | | | | | | | | | | |
| 1983 | 4 | 2.2 | 3.5 | 6.9 | 281 | 90 | 2107 | 6.9 | 5.9 | 105 | 105 | 17 | 104 | 42 |
| 1984 | 4 | 1.9 | 2.7 | 7.8 | 303 | 96 | 2263 | 7.1 | 6.1 | 115 | 108 | 21 | 79 | 45 |
| KANSAS | | | | | | | | | | | | | | |
| 1983* | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 2 | 4.2 | 6.6 | 10.1 | 268 | 85 | 2007 | 6.6 | 5.9 | 80 | 65 | 56 | 446 | 38 |
| NORTHWEST TEXAS | | | | | | | | | | | | | | |
| 1983 | 19 | 2.2 | 3.6 | 6.9 | 297 | 93 | 2209 | 7.2 | 6.4 | 105 | 98 | 25 | 125 | 42 |
| 1984 | 23 | 2.8 | 4.6 | 7.3 | 305 | 96 | 2272 | 8.0 | 7.0 | 104 | 97 | 21 | 104 | 47 |
| OKLAHOMA | | | | | | | | | | | | | | |
| 1983 | 4 | 2.8 | 4.4 | 8.1 | 285 | 91 | 2137 | 6.9 | 6.1 | 110 | 110 | 25 | 110 | 42 |
| 1984 | 4 | 2.6 | 4.5 | 7.8 | 288 | 91 | 2154 | 6.9 | 6.2 | 98 | 100 | 18 | 127 | 45 |
| SOUTH TEXAS | | | | | | | | | | | | | | |
| 1983* | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1984 | 2 | 1.8 | 2.9 | 7.2 | 290 | 91 | 2154 | 7.1 | 6.3 | 105 | 110 | 23 | 77 | 46 |

*NO COMPARABLE DATA.

TABLE 2.-- CONTINUED

| AREA, STAPLE GROUP, STATE AND CROP YEAR | NO. OF LOTS | CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| | NO. | INDEX | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| SOUTHWEST | | | | | | | | | | | | | | | |
| MEDIUM STAPLE | | | | | | | | | | | | | | | |
| CENTRAL TEXAS | | | | | | | | | | | | | | | |
| 1983 | 2 | 94 | 36.0 | 1.10 | 81 | 45 | 195.3 | 0.953 | 23.5 | 21.5 | 5.3 | 76.5 | 8.4 | 31-2 | 0.14 |
| 1984 | 4 | 99 | 34.3 | 1.10 | 80 | 43 | 173.8 | 0.958 | 24.6 | 23.5 | 6.1 | 77.4 | 8.8 | 31-3 | 0.35 |
| NORTHWEST TEXAS | | | | | | | | | | | | | | | |
| 1983 | 11 | 80 | 33.3 | 1.02 | 78 | 36 | 146.3 | 0.846 | 25.2 | 22.4 | 6.1 | 69.9 | 9.5 | 42-1 | 0.18 |
| 1984 | 11 | 84 | 32.5 | 1.00 | 78 | 29 | 146.8 | 0.684 | 26.4 | 23.7 | 6.9 | 76.1 | 8.9 | 31-3 | 0.32 |
| OKLAHOMA | | | | | | | | | | | | | | | |
| 1983 | 2 | 80 | 32.5 | 0.99 | 79 | 34 | 138.0 | 0.872 | 24.0 | 21.5 | 6.5 | 68.3 | 8.6 | 51-3 | 0.19 |
| 1984 | 6 | 85 | 32.2 | 0.99 | 79 | 35 | 154.4 | 0.806 | 24.6 | 21.9 | 5.9 | 74.0 | 9.3 | 31-4 | 0.38 |
| SOUTH TEXAS | | | | | | | | | | | | | | | |
| 1983 | 13 | 88 | 34.0 | 1.04 | 80 | 45 | 190.2 | 0.945 | 22.8 | 22.4 | 6.0 | 74.4 | 8.5 | 41-3 | 0.28 |
| 1984 | 10 | 96 | 33.0 | 1.04 | 80 | 37 | 161.3 | 0.882 | 23.6 | 22.4 | 6.1 | 77.8 | 8.7 | 31-1 | 0.42 |
| WEST | | | | | | | | | | | | | | | |
| ARIZONA | | | | | | | | | | | | | | | |
| 1983 | 10 | 95 | 35.6 | 1.10 | 80 | 47 | 180.7 | 0.977 | 25.4 | 23.6 | 6.0 | 77.0 | 8.9 | 31-3 | 0.19 |
| 1984 | 16 | 98 | 35.8 | 1.12 | 80 | 46 | 178.9 | 0.979 | 27.6 | 24.4 | 6.0 | 79.7 | 8.7 | 21-1 | 0.31 |
| CALIFORNIA | | | | | | | | | | | | | | | |
| 1983 | 21 | 96 | 35.7 | 1.12 | 81 | 42 | 170.9 | 0.934 | 28.0 | 26.3 | 5.8 | 77.8 | 8.6 | 31-1 | 0.27 |
| 1984 | 30 | 100 | 36.2 | 1.15 | 81 | 42 | 164.0 | 0.949 | 29.5 | 27.0 | 5.8 | 79.1 | 8.8 | 21-2 | 0.35 |
| LONG STAPLE | | | | | | | | | | | | | | | |
| NEW MEXICO | | | | | | | | | | | | | | | |
| 1983 | 2 | 90 | 38.0 | 1.19 | 83 | 41 | 167.0 | 0.937 | 29.0 | 29.5 | 6.2 | 74.3 | 7.9 | 41-1 | 0.27 |
| 1984 | 2 | 94 | 37.5 | 1.17 | 82 | 36 | 139.7 | 0.895 | 27.2 | 26.9 | 6.5 | 77.5 | 7.9 | 31-2 | 0.34 |

TABLE 2.--CONTINUED

| AREA, STAPLE GROUP, STATE AND CROP YEAR | NO. OF LOTS | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| | | VISIBLE WASTE | TOTAL WASTE | | COARSE | FINE | BR. FACTOR | COARSE | FINE | COARSE | FINE | COARSE | FINE | |
| | NO. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| SOUTHWEST | | | | | | | | | | | | | | |
| MEDIUM STAPLE | | | | | | | | | | | | | | |
| CENTRAL TEXAS | | | | | | | | | | | | | | |
| 1983 | 2 | 1.4 | 2.2 | 6.4 | 98 | 32 | 1866 | 5.7 | 4.1 | 95 | 70 | 101 | 556 | 56 |
| 1984 | 4 | 1.3 | 2.2 | 5.9 | 102 | 33 | 1953 | 5.9 | 4.3 | 105 | 75 | 121 | 1008 | 56 |
| NORTHWEST TEXAS | | | | | | | | | | | | | | |
| 1983 | 11 | 3.0 | 4.4 | 8.3 | 100 | 32 | 1907 | 6.0 | 4.7 | 92 | 69 | 150 | 587 | 47 |
| 1984 | 11 | 2.8 | 4.7 | 7.8 | 102 | 33 | 1960 | 6.6 | 5.1 | 98 | 66 | 116 | 772 | 53 |
| OKLAHOMA | | | | | | | | | | | | | | |
| 1983 | 2 | 3.4 | 4.7 | 8.3 | 93 | 30 | 1773 | 6.1 | 4.3 | 100 | 70 | 89 | 538 | 50 |
| 1984 | 6 | 3.4 | 5.0 | 8.5 | 94 | 29 | 1757 | 6.1 | 4.7 | 100 | 67 | 112 | 916 | 46 |
| SOUTH TEXAS | | | | | | | | | | | | | | |
| 1983 | 13 | 2.7 | 3.6 | 7.1 | 96 | 32 | 1855 | 5.9 | 4.4 | 102 | 79 | 85 | 325 | 53 |
| 1984 | 10 | 1.8 | 3.0 | 6.9 | 96 | 29 | 1763 | 5.8 | 4.2 | 111 | 75 | 91 | 612 | 52 |
| WEST | | | | | | | | | | | | | | |
| ARIZONA | | | | | | | | | | | | | | |
| 1983 | 10 | 1.3 | 2.5 | 6.3 | 102 | 34 | 1970 | 6.0 | 4.5 | 100 | 69 | 118 | 589 | 52 |
| 1984 | 16 | 1.2 | 2.4 | 6.0 | 108 | 35 | 2056 | 6.0 | 4.7 | 108 | 70 | 137 | 1004 | 55 |
| CALIFORNIA | | | | | | | | | | | | | | |
| 1983 | 21 | 1.3 | 2.3 | 5.8 | 124 | 45 | 2493 | 6.2 | 4.9 | 98 | 72 | 165 | 497 | 71 |
| 1984 | 30 | 1.1 | 2.2 | 5.6 | 128 | 46 | 2556 | 6.3 | 4.9 | 100 | 72 | 216 | 834 | 76 |
| LONG STAPLE | | | | | | | | | | | | | | |
| NEW MEXICO | | | | | | | | | | | | | | |
| 1983 | 2 | 3.8 | 5.0 | 8.7 | 145 | 53 | 2920 | 6.4 | 5.4 | 100 | 80 | 179 | 247 | 99 |
| 1984 | 2 | 1.5 | 2.4 | 7.5 | 136 | 48 | 2684 | 6.6 | 5.5 | 100 | 70 | 80 | 583 | 94 |

TABLE 3.--COTTON: AVERAGE RESULTS OF FIBER AND CARDED YARN PROCESSING TESTS BY STAPLE GROUP, AREA, GRADE AND STAPLE FOR AMERICAN UPLAND SAMPLES FROM SELECTED GIN POINTS, CROP OF 1984.

| STAPLE GROUP, AREA, GRADE AND STAPLE | | NO. OF LOTS | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NAME | CODE | 32ND IN. | NO. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| SHORT STAPLE | | | | | | | | | | | | | | | |
| SOUTHWEST | | | | | | | | | | | | | | | |
| SLM LT SP | 42 | 30 | 5 | 0.91 | 79 | 33 | 152.2 | 0.767 | 24.5 | 21.3 | 7.5 | 74.4 | 9.0 | 31-4 | 0.19 |
| | | 31 | 3 | 0.95 | 79 | 37 | 169.3 | 0.841 | 23.7 | 21.1 | 6.5 | 72.2 | 9.7 | 32-2 | 0.19 |
| LM LT SP | 52 | 31 | 5 | 0.95 | 79 | 34 | 155.0 | 0.771 | 24.3 | 21.7 | 7.1 | 73.5 | 8.9 | 41-3 | 0.24 |
| MEDIUM STAPLE | | | | | | | | | | | | | | | |
| SOUTHEAST | | | | | | | | | | | | | | | |
| SLM | 41 | 35 | 6 | 1.10 | 80 | 42 | 163.0 | 0.908 | 25.7 | 23.9 | 6.1 | 75.5 | 8.4 | 31-4 | 0.35 |
| | | 36 | 4 | 1.12 | 81 | 42 | 175.3 | 0.893 | 26.2 | 24.0 | 6.1 | 75.9 | 8.1 | 31-2 | 0.34 |
| SOUTH CENTRAL | | | | | | | | | | | | | | | |
| M | 31 | 35 | 5 | 1.09 | 80 | 43 | 179.5 | 0.919 | 26.0 | 22.4 | 6.0 | 78.1 | 8.7 | 21-2 | 0.35 |
| SLM | 41 | 36 | 4 | 1.12 | 81 | 44 | 182.5 | 0.914 | 26.7 | 23.7 | 5.7 | 74.1 | 8.8 | 31-4 | 0.23 |
| | | 37 | 3 | 1.15 | 81 | 43 | 178.6 | 0.892 | 26.5 | 23.2 | 6.0 | 76.2 | 8.4 | 31-4 | 0.27 |
| SLM LT SP | 42 | 35 | 5 | 1.08 | 80 | 42 | 178.9 | 0.871 | 24.5 | 21.0 | 6.6 | 71.4 | 8.6 | 41-4 | 0.17 |
| LM LT SP | 52 | 35 | 14 | 1.10 | 79 | 39 | 168.8 | 0.841 | 25.0 | 21.2 | 6.2 | 69.1 | 8.4 | 51-3 | 0.19 |
| | | 36 | 15 | 1.12 | 79 | 39 | 167.7 | 0.839 | 25.1 | 21.4 | 6.2 | 68.3 | 8.5 | 51-3 | 0.20 |
| | | 37 | 3 | 1.15 | 80 | 42 | 162.3 | 0.910 | 25.6 | 22.3 | 6.5 | 67.7 | 8.1 | 51-3 | 0.20 |
| SOUTHWEST | | | | | | | | | | | | | | | |
| M | 31 | 32 | 3 | 1.01 | 79 | 35 | 153.4 | 0.868 | 23.3 | 21.9 | 6.1 | 79.6 | 9.2 | 21-3 | 0.45 |
| SLM | 41 | 34 | 4 | 1.06 | 80 | 40 | 169.0 | 0.888 | 24.6 | 22.0 | 5.9 | 74.7 | 8.6 | 31-4 | 0.34 |
| LM LT SP | 52 | 31 | 3 | 0.94 | 78 | 31 | 140.1 | 0.761 | 24.1 | 21.4 | 6.2 | 74.8 | 9.0 | 31-4 | 0.34 |
| WEST | | | | | | | | | | | | | | | |
| M | 31 | 35 | 6 | 1.09 | 81 | 49 | 184.0 | 1.029 | 27.0 | 24.6 | 6.0 | 79.3 | 8.5 | 21-2 | 0.24 |
| | | 36 | 24 | 1.14 | 81 | 42 | 166.3 | 0.936 | 29.3 | 26.4 | 5.9 | 79.6 | 8.8 | 21-1 | 0.35 |
| | | 37 | 8 | 1.15 | 82 | 43 | 162.2 | 0.966 | 29.8 | 27.3 | 5.8 | 79.0 | 8.8 | 21-2 | 0.39 |
| SLM | 41 | 36 | 6 | 1.14 | 81 | 46 | 174.4 | 0.979 | 27.4 | 24.6 | 5.8 | 78.3 | 8.9 | 21-4 | 0.33 |

TABLE 3.--CONTINUED

| STAPLE GROUP, AREA, GRADE AND STAPLE | | | NO. OF LOTS | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| | | | | VISIBLE WASTE | TOTAL WASTE | | COARSE | FINE | BR. FACTOR | COARSE | FINE | COARSE | FINE | COARSE | FINE | |
| NAME | CODE | 32ND IN. | NO. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| SHORT STAPLE | | | | | | | | | | | | | | | | |
| SOUTHWEST | | | | | | | | | | | | | | | | |
| SLM LT SP | 42 | 30 | 5 | 1.7 | 3.4 | 6.4 | 295 | 93 | 2206 | 7.6 | 6.7 | 106 | 96 | 29 | 119 | 45 |
| | | 31 | 3 | 2.1 | 3.4 | 7.0 | 290 | 92 | 2176 | 7.3 | 6.6 | 110 | 103 | 16 | 84 | 45 |
| LM LT SP | 52 | 31 | 5 | 2.7 | 4.3 | 7.7 | 301 | 95 | 2253 | 7.6 | 6.8 | 98 | 98 | 21 | 114 | 49 |
| MEDIUM STAPLE | | | | | | | | | | | | | | | | |
| SOUTHEAST | | | | | | | | | | | | | | | | |
| SLM | 41 | 35 | 6 | 1.9 | 2.8 | 6.1 | 109 | 36 | 2094 | 6.7 | 4.9 | 108 | 77 | 136 | 886 | 64 |
| | | 36 | 4 | 1.8 | 2.9 | 6.1 | 111 | 36 | 2125 | 6.6 | 5.0 | 100 | 80 | 111 | 743 | 66 |
| SOUTH CENTRAL | | | | | | | | | | | | | | | | |
| M | 31 | 35 | 5 | 1.2 | 2.2 | 6.3 | 100 | 31 | 1874 | 5.9 | 4.4 | 106 | 64 | 197 | 1000 | 50 |
| SLM | 41 | 36 | 4 | 1.8 | 2.7 | 6.4 | 107 | 35 | 2056 | 6.4 | 4.8 | 105 | 75 | 145 | 817 | 62 |
| | | 37 | 3 | 2.2 | 3.3 | 6.7 | 104 | 34 | 2002 | 6.2 | 4.7 | 100 | 70 | 165 | 1012 | 59 |
| SLM LT SP | 42 | 35 | 5 | 1.4 | 2.8 | 6.2 | 90 | 29 | 1712 | 6.2 | 4.6 | 104 | 70 | 87 | 849 | 47 |
| LM LT SP | 52 | 35 | 14 | 2.0 | 3.6 | 7.4 | 90 | 29 | 1697 | 6.0 | 4.7 | 102 | 65 | 151 | 976 | 49 |
| | | 36 | 15 | 2.0 | 3.4 | 7.0 | 94 | 30 | 1788 | 6.0 | 4.5 | 99 | 67 | 130 | 1131 | 53 |
| | | 37 | 3 | 2.1 | 3.3 | 9.5 | 96 | 31 | 1827 | 6.3 | 4.4 | 107 | 70 | 93 | 1115 | 55 |
| SOUTHWEST | | | | | | | | | | | | | | | | |
| M | 31 | 32 | 3 | 1.4 | 2.5 | 6.7 | 88 | 24 | 1576 | 5.7 | 3.8 | 110 | 70 | 70 | 620 | 47 |
| SLM | 41 | 34 | 4 | 2.4 | 3.9 | 7.6 | 96 | 30 | 1791 | 6.0 | 4.4 | 105 | 73 | 128 | 1073 | 49 |
| LM LT SP | 52 | 31 | 3 | 3.4 | 5.1 | 8.6 | 93 | 28 | 1731 | 6.1 | 4.8 | 97 | 67 | 93 | 683 | 45 |
| WEST | | | | | | | | | | | | | | | | |
| M | 31 | 35 | 6 | 1.0 | 2.0 | 6.1 | 105 | 33 | 1970 | 5.5 | 4.2 | 105 | 67 | 177 | 1226 | 52 |
| | | 36 | 24 | 1.1 | 2.3 | 5.7 | 123 | 43 | 2419 | 6.4 | 4.9 | 102 | 71 | 187 | 867 | 71 |
| | | 37 | 8 | 1.1 | 2.2 | 5.2 | 135 | 49 | 2716 | 6.4 | 5.1 | 99 | 73 | 246 | 725 | 78 |
| SLM | 41 | 36 | 6 | 1.7 | 2.9 | 6.2 | 111 | 38 | 2165 | 6.0 | 4.7 | 108 | 73 | 133 | 911 | 62 |

TABLE 4.--COTTON: AVERAGE OF CLASSIFICATION, FIBER TESTS, AND YARN PROCESSING TESTS BY STAPLE GROUP, VARIETY AND STATE FOR SAMPLES FROM SELECTED 100 PERCENT ONE-VARIETY GIN POINTS, CROP OF 1984.

| STAPLE GROUP, VARIETY, AND STATE | NO. OF LOTS | CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| | NO. | INDEX | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| MEDIUM STAPLE | | | | | | | | | | | | | | | |
| ACALA SJ-2 CALIFORNIA | 14 | 100 | 36.1 | 1.15 | 81 | 41 | 165.5 | 0.914 | 29.6 | 26.8 | 5.9 | 78.9 | 9.0 | 21-2 | 0.36 |
| ACALA SJ-5 CALIFORNIA | 2 | 100 | 37.0 | 1.15 | 81 | 43 | 160.8 | 0.958 | 29.5 | 26.9 | 5.5 | 77.8 | 8.7 | 31-1 | 0.35 |
| ACALA SJC-1 CALIFORNIA | 6 | 100 | 36.2 | 1.15 | 82 | 40 | 153.6 | 0.962 | 30.9 | 27.9 | 6.0 | 79.8 | 8.8 | 21-1 | 0.37 |
| COKER 315 SOUTH CAROLINA | 2 | 83 | 35.5 | 1.13 | 80 | 37 | 158.8 | 0.787 | 26.6 | 23.4 | 6.4 | 74.2 | 8.7 | 31-4 | 0.33 |
| DELTAPINE NSL MISSISSIPPI | 2 | 80 | 35.5 | 1.13 | 81 | 40 | 168.1 | 0.843 | 25.0 | 21.5 | 7.4 | 70.3 | 8.8 | 41-4 | 0.20 |
| DELTAPINE 120 ARIZONA | 2 | 100 | 35.0 | 1.06 | 81 | 49 | 186.7 | 0.999 | 26.2 | 24.5 | 6.4 | 79.9 | 8.4 | 21-2 | 0.26 |
| DELTAPINE 150 MISSISSIPPI | 2 | 92 | 35.5 | 1.13 | 80 | 42 | 173.3 | 0.871 | 24.3 | 21.9 | 7.5 | 73.5 | 8.5 | 41-3 | 0.30 |
| DELTAPINE 41 | | | | | | | | | | | | | | | |
| ARKANSAS | 2 | 80 | 36.0 | 1.12 | 78 | 34 | 154.1 | 0.790 | 23.8 | 21.4 | 6.1 | 68.8 | 8.9 | 42-2 | 0.23 |
| MISSISSIPPI | 2 | 85 | 36.0 | 1.11 | 78 | 34 | 136.3 | 0.759 | 24.1 | 22.0 | 6.2 | 72.7 | 8.4 | 41-3 | 0.27 |
| DELTAPINE 61 ARKANSAS | 2 | 80 | 36.0 | 1.15 | 80 | 40 | 170.7 | 0.843 | 25.8 | 21.9 | 5.8 | 70.4 | 8.0 | 41-4 | 0.24 |
| DELTAPINE 90 ALABAMA | 2 | 92 | 35.0 | 1.09 | 80 | 43 | 171.5 | 0.907 | 27.2 | 24.6 | 6.5 | 72.5 | 8.3 | 41-3 | 0.29 |
| DES 422 MISSISSIPPI | 2 | 80 | 35.5 | 1.15 | 80 | 38 | 159.8 | 0.820 | 24.4 | 21.2 | 6.3 | 67.3 | 8.4 | 51-3 | 0.19 |

TABLE 4.--CONTINUED

| STAPLE GROUP, VARIETY, AND STATE | NO. OF LOTS | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| | | VISIBLE WASTE | TOTAL WASTE | | COARSE | FINE | BR. FACTOR | COARSE | FINE | COARSE | FINE | COARSE | FINE | |
| | NO. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| MEDIUM STAPLE | | | | | | | | | | | | | | |
| ACALA SJ-2 | | | | | | | | | | | | | | |
| CALIFORNIA | 14 | 1.1 | 2.0 | 5.5 | 126 | 45 | 2500 | 6.4 | 5.0 | 101 | 71 | 194 | 812 | 74 |
| ACALA SJ-5 | | | | | | | | | | | | | | |
| CALIFORNIA | 2 | 1.1 | 2.0 | 5.4 | 133 | 47 | 2620 | 6.2 | 5.1 | 100 | 75 | 215 | 795 | 75 |
| ACALA SJC-1 | | | | | | | | | | | | | | |
| CALIFORNIA | 6 | 1.3 | 2.6 | 5.5 | 138 | 51 | 2787 | 6.6 | 5.2 | 97 | 72 | 212 | 652 | 86 |
| COKER 315 | | | | | | | | | | | | | | |
| SOUTH CAROLINA | 2 | 3.7 | 4.8 | 7.3 | 106 | 36 | 2054 | 6.7 | 5.0 | 105 | 65 | 212 | 1030 | 65 |
| DELTAPINE NSL | | | | | | | | | | | | | | |
| MISSISSIPPI | 2 | 2.1 | 3.5 | 6.5 | 96 | 31 | 1826 | 6.7 | 4.9 | 100 | 65 | 143 | 1028 | 57 |
| DELTAPINE 120 | | | | | | | | | | | | | | |
| ARIZONA | 2 | 0.9 | 1.9 | 6.2 | 103 | 32 | 1928 | 5.8 | 4.8 | 100 | 65 | 139 | 1036 | 49 |
| DELTAPINE 150 | | | | | | | | | | | | | | |
| MISSISSIPPI | 2 | 1.0 | 2.1 | 5.7 | 98 | 31 | 1853 | 6.6 | 5.0 | 115 | 75 | 107 | 687 | 56 |
| DELTAPINE 41 | | | | | | | | | | | | | | |
| ARKANSAS | 2 | 1.6 | 3.5 | 6.7 | 90 | 29 | 1703 | 5.8 | 4.2 | 95 | 60 | 146 | 1571 | 52 |
| MISSISSIPPI | 2 | 1.4 | 2.5 | 6.3 | 101 | 32 | 1906 | 6.4 | 4.9 | 95 | 65 | 108 | 1135 | 56 |
| DELTAPINE 61 | | | | | | | | | | | | | | |
| ARKANSAS | 2 | 2.5 | 3.7 | 7.9 | 93 | 31 | 1793 | 6.1 | 4.8 | 95 | 60 | 155 | 1122 | 51 |
| DELTAPINE 90 | | | | | | | | | | | | | | |
| ALABAMA | 2 | 1.4 | 2.4 | 5.7 | 112 | 37 | 2139 | 6.3 | 4.9 | 110 | 75 | 85 | 777 | 64 |
| DES 422 | | | | | | | | | | | | | | |
| MISSISSIPPI | 2 | 2.6 | 4.4 | 8.4 | 93 | 30 | 1761 | 6.3 | 4.7 | 100 | 60 | 314 | 1172 | 53 |

TABLE 4.-- CONTINUED

| STAPLE GROUP, VARIETY, AND STATE | NO. OF LOTS | CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| | NO. | INDEX | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| MEDIUM STAPLE | | | | | | | | | | | | | | | |
| DUNN 120 | | | | | | | | | | | | | | | |
| NORTHWEST TEXAS | 1 | 89 | 30.0 | 0.93 | 78 | 29 | 137.1 | 0.735 | 26.0 | 22.9 | 6.5 | 77.3 | 9.0 | 31-3 | 0.24 |
| GC-510 | | | | | | | | | | | | | | | |
| CALIFORNIA | 2 | 100 | 37.0 | 1.17 | 83 | 44 | 159.6 | 1.006 | 30.1 | 27.9 | 5.8 | 80.0 | 8.5 | 21-1 | 0.42 |
| PAYMASTER 404 | | | | | | | | | | | | | | | |
| NORTHWEST TEXAS | 2 | 85 | 33.0 | 1.02 | 80 | 31 | 141.7 | 0.744 | 25.8 | 23.9 | 6.9 | 75.8 | 8.6 | 31-4 | 0.39 |
| STONEVILLE 506 | | | | | | | | | | | | | | | |
| ARKANSAS | 2 | 89 | 36.5 | 1.15 | 80 | 40 | 173.0 | 0.850 | 24.9 | 22.1 | 6.5 | 71.6 | 8.6 | 41-3 | 0.20 |
| MISSISSIPPI | 2 | 80 | 36.0 | 1.13 | 78 | 36 | 159.0 | 0.774 | 26.3 | 21.3 | 6.6 | 67.0 | 8.2 | 51-3 | 0.20 |
| TENNESSEE | 2 | 89 | 35.0 | 1.10 | 80 | 43 | 183.4 | 0.884 | 25.3 | 21.9 | 6.1 | 70.7 | 8.9 | 41-4 | 0.18 |
| STONEVILLE 825 | | | | | | | | | | | | | | | |
| CENTRAL TEXAS | 2 | 97 | 34.0 | 1.06 | 80 | 42 | 174.0 | 0.927 | 23.6 | 22.4 | 5.7 | 75.9 | 8.6 | 31-4 | 0.31 |
| LOUISIANA | 4 | 92 | 35.0 | 1.11 | 80 | 44 | 182.3 | 0.919 | 24.8 | 21.7 | 5.7 | 73.0 | 8.2 | 41-3 | 0.25 |
| MISSISSIPPI | 4 | 92 | 36.0 | 1.13 | 80 | 43 | 180.0 | 0.904 | 25.3 | 21.9 | 5.8 | 74.2 | 8.5 | 41-3 | 0.29 |
| SOUTH TEXAS | 2 | 88 | 35.0 | 1.14 | 81 | 43 | 180.4 | 0.904 | 24.8 | 22.8 | 6.1 | 75.5 | 8.0 | 41-1 | 0.32 |
| LONG STAPLE | | | | | | | | | | | | | | | |
| ACALA 1517-75 | | | | | | | | | | | | | | | |
| NEW MEXICO | 2 | 94 | 37.5 | 1.17 | 82 | 36 | 139.7 | 0.895 | 27.2 | 26.9 | 6.5 | 77.5 | 7.9 | 31-2 | 0.34 |

TABLE 4.--CONTINUED

| STAPLE GROUP, VARIETY, AND STATE | NO. OF LOTS | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| | | VISIBLE WASTE | TOTAL WASTE | | COARSE | FINE | BR. FACTOR | COARSE | FINE | COARSE | FINE | COARSE | FINE | |
| | NO. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| MEDIUM STAPLE | | | | | | | | | | | | | | |
| DUNN 120 | | | | | | | | | | | | | | |
| NORTHWEST TEXAS | 1 | 1.2 | 3.1 | 6.3 | 103 | 33 | 1958 | 6.8 | 5.0 | 100 | 70 | 70 | 526 | 52 |
| GC-510 | | | | | | | | | | | | | | |
| CALIFORNIA | 2 | 1.0 | 2.4 | 5.2 | 140 | 53 | 2853 | 6.7 | 5.2 | 100 | 75 | 367 | 786 | 83 |
| PAYMASTER 404 | | | | | | | | | | | | | | |
| NORTHWEST TEXAS | 2 | 3.3 | 4.9 | 8.0 | 103 | 33 | 1953 | 6.8 | 4.8 | 100 | 60 | 139 | 885 | 53 |
| STONEVILLE 506 | | | | | | | | | | | | | | |
| ARKANSAS | 2 | 1.4 | 2.8 | 6.0 | 99 | 32 | 1884 | 6.3 | 4.9 | 115 | 75 | 86 | 776 | 57 |
| MISSISSIPPI | 2 | 2.3 | 4.3 | 7.3 | 94 | 30 | 1772 | 5.9 | 5.0 | 95 | 70 | 108 | 910 | 50 |
| TENNESSEE | 2 | 1.7 | 3.1 | 6.4 | 92 | 30 | 1757 | 6.1 | 4.3 | 110 | 75 | 59 | 726 | 50 |
| STONEVILLE 825 | | | | | | | | | | | | | | |
| CENTRAL TEXAS | 2 | 1.4 | 2.3 | 6.1 | 93 | 29 | 1743 | 5.5 | 4.0 | 105 | 75 | 131 | 1077 | 51 |
| LOUISIANA | 4 | 1.7 | 3.0 | 6.8 | 94 | 29 | 1768 | 5.9 | 4.1 | 98 | 65 | 135 | 1061 | 51 |
| MISSISSIPPI | 4 | 1.6 | 2.8 | 6.6 | 97 | 31 | 1839 | 6.1 | 4.4 | 100 | 65 | 194 | 1089 | 54 |
| SOUTH TEXAS | 2 | 2.8 | 3.9 | 7.5 | 102 | 34 | 1972 | 5.8 | 4.2 | 110 | 80 | 92 | 761 | 59 |
| LONG STAPLE | | | | | | | | | | | | | | |
| ACALA 1517-75 | | | | | | | | | | | | | | |
| NEW MEXICO | 2 | 1.5 | 2.4 | 7.5 | 136 | 48 | 2684 | 6.6 | 5.5 | 100 | 70 | 80 | 583 | 94 |

TABLE 5.--COTTON: AMERICAN UPLAND SHORT STAPLE: QUALITY CHARACTERISTICS BY PRODUCTION AREA AND CLASSIFACATION, CROP OF 1984.

| PRODUCTION AREA AND CLASSIFICATION | | | FIBER LENGTH | | MICRO-NAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELON-GATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| SOUTHWEST | | | | | | | | | | | | | | |
| CENTRAL TEXAS | | | | | | | | | | | | | | |
| AQUILLA | | | GP 3774 | | | 90 PERCENT | | | | | | | | |
| 1 SLM | 41 | 30 | 0.93 | 79 | 36 | 148.2 | 0.854 | 19.4 | 21.5 | 5.3 | 77.5 | 8.9 | 21-4 | 0.38 |
| 2 SLM PLUS | 40 | 31 | 0.93 | 79 | 40 | 168.1 | 0.936 | 21.2 | 20.6 | 6.6 | 77.3 | 9.8 | 21-3 | 0.35 |
| MALONE | | | LANKART LX-571 | | | 95 PERCENT | | | | | | | | |
| 1 M LT SP | 32 | 31 | 0.97 | 80 | 46 | 187.6 | 0.945 | 21.8 | 22.6 | 6.0 | 75.0 | 9.7 | 31-3 | 0.50 |
| 2 M LT SP | 32 | 31 | 0.97 | 80 | 46 | 195.1 | 0.953 | 23.0 | 22.0 | 6.7 | 75.0 | 10.4 | 22-2 | 0.30 |
| KANSAS | | | | | | | | | | | | | | |
| STERLING | | | CASCOT C-13 | | | 70 PERCENT | | | | | | | | |
| 1 LM TG | 54 | 34 | 1.04 | 76 | 26 | 138.5 | 0.673 | 24.4 | 21.2 | 5.7 | 63.5 | 11.6 | 43-4 | 0.35 |
| 2 LM TG | 54* | 33 | 1.03 | 76 | 29 | 133.8 | 0.705 | 23.6 | 21.0 | 6.0 | 59.8 | 12.4 | 54-1 | 0.30 |
| NORTHWEST TEXAS | | | | | | | | | | | | | | |
| BOVINA | | | PAYMASTER 792 | | | 85 PERCENT | | | | | | | | |
| 1 SGO LT SP | 62** | 33 | 1.00 | 79 | 25 | 130.9 | 0.612 | 24.0 | 21.8 | 6.9 | 75.0 | 8.5 | 31-4 | 0.34 |
| 2 SGO LT SP | 62** *** | 33 | 1.00 | 78 | 25 | 132.2 | 0.588 | 27.8 | 24.4 | 7.4 | 73.0 | 8.9 | 41-3 | 0.37 |
| BULA | | | TAMCOT SP-21 | | | 80 PERCENT | | | | | | | | |
| 1 LM | 51 | 32 | 0.99 | 79 | 31 | 145.0 | 0.705 | 25.2 | 24.2 | 7.2 | 76.0 | 8.4 | 31-2 | 0.43 |
| 2 LM LT SP | 52# | 31 | 0.94 | 77 | 26 | 127.6 | 0.644 | 22.6 | 23.3 | 7.1 | 76.0 | 8.9 | 31-3 | 0.34 |
| COTTON CENTER | | | GSA-71 | | | 70 PERCENT | | | | | | | | |
| 1 SLM | 41 | 33 | 1.03 | 79 | 28 | 145.7 | 0.703 | 26.6 | 23.5 | 6.8 | 78.2 | 8.6 | 21-2 | 0.39 |
| 2 LM LT SP | 52# | 33 | 1.02 | 79 | 31 | 146.0 | 0.717 | 26.0 | 22.6 | 6.8 | 75.5 | 9.4 | 31-3 | 0.32 |

*REDUCED FROM 44 BECAUSE OF BARK.
**REDUCED FROM 52 BECAUSE OF BARK.
***AVERAGING RULE USED.
#REDUCED FROM 42 BECAUSE OF BARK.

TABLE 5.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | |
| GRADE | STAPLE | | VISIBLE WASTE | TOTAL WASTE | | 8s | 22s | BR. FACTOR | 8s | 22s | 8s | 22s | 8s | 22s |
| NO.-NAME-CODE | 32ND IN. | | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **SOUTHWEST** | | | | | | | | | | | | | | | |
| **CENTRAL TEXAS** | | | | | | | | | | | | | | | |
| AQUILLA | | | GP 3774 | | | | 90 PERCENT | | | | | | | | |
| 1 SLM | 41 | 30 | 2.6 | 3.8 | 7.4 | 302 | 96 | 2264 | 7.0 | 6.4 | 110 | 100 | 26 | 101 | 42 |
| 2 SLM PLUS | 40 | 31 | 2.2 | 3.1 | 11.3 | 299 | 94 | 2230 | 7.2 | 6.0 | 120 | 110 | 28 | 113 | 45 |
| MALONE | | | LANKART LX-571 | | | | 95 PERCENT | | | | | | | | |
| 1 M LT SP | 32 | 31 | 1.6 | 2.3 | 6.1 | 305 | 95 | 2265 | 7.1 | 6.0 | 100 | 100 | 17 | 26 | 45 |
| 2 M LT SP | 32 | 31 | 1.1 | 1.5 | 6.4 | 306 | 97 | 2291 | 7.0 | 6.0 | 130 | 120 | 12 | 75 | 49 |
| **KANSAS** | | | | | | | | | | | | | | | |
| STERLING | | | CASCOT C-13 | | | | 70 PERCENT | | | | | | | | |
| 1 LM TG | 54 | 34 | 4.1 | 6.9 | 10.0 | 278 | 90 | 2102 | 6.8 | 6.0 | 80 | 70 | 51 | 315 | 43 |
| 2 LM TG | 54* | 33 | 4.3 | 6.2 | 10.2 | 258 | 80 | 1912 | 6.3 | 5.8 | 80 | 60 | 61 | 577 | 33 |
| **NORTHWEST TEXAS** | | | | | | | | | | | | | | | |
| BOVINA | | | PAYMASTER 792 | | | | 85 PERCENT | | | | | | | | |
| 1 SGO LT SP | 62** | 33 | 6.1 | 8.2 | 10.7 | 322 | 102 | 2410 | 8.4 | 7.5 | 100 | 90 | 28 | 158 | 43 |
| 2 SGO LT SP | 62** *** | 33 | 6.7 | 8.4 | 11.2 | 330 | 104 | 2464 | 8.2 | 7.7 | 100 | 90 | 4 | 162 | 51 |
| BULA | | | TAMCOT SP-21 | | | | 80 PERCENT | | | | | | | | |
| 1 LM | 51 | 32 | 5.2 | 6.8 | 8.0 | 328 | 101 | 2423 | 8.5 | 7.0 | 100 | 100 | 18 | 159 | 54 |
| 2 LM LT SP | 52# | 31 | 3.5 | 4.8 | 8.9 | 316 | 99 | 2353 | 8.0 | 7.6 | 100 | 90 | 30 | 122 | 51 |
| COTTON CENTER | | | GSA-71 | | | | 70 PERCENT | | | | | | | | |
| 1 SLM | 41 | 33 | 1.7 | 3.0 | 5.7 | 331 | 102 | 2446 | 9.0 | 7.7 | 100 | 100 | 14 | 75 | 58 |
| 2 LM LT SP | 52# | 33 | 2.3 | 4.2 | 7.0 | 324 | 100 | 2396 | 8.5 | 8.2 | 100 | 100 | 2 | 71 | 52 |

*REDUCED FROM 44 BECAUSE OF BARK.
**REDUCED FROM 52 BECAUSE OF BARK.
***AVERAGING RULE USED.
#REDUCED FROM 42 BECAUSE OF BARK.

TABLE 5.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | 32ND IN. | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | | | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| SOUTHWEST | | | | | | | | | | | | | | |
| NORTHWEST TEXAS | | | | | | | | | | | | | | |
| LAMESA | | | TAMCOT SP-21 | | | | 75 PERCENT | | | | | | | |
| 2 LM | 51* | 31 | 0.96 | 77 | 25 | 122.8 | 0.673 | 25.2 | 22.4 | 7.8 | 73.0 | 8.4 | 41-3 | 0.24 |
| LEVELLAND | | | GSA-71 | | | | 85 PERCENT | | | | | | | |
| 1 SLM | 41 | 32 | 0.98 | 79 | 31 | 150.7 | 0.723 | 27.0 | 23.3 | 6.9 | 76.7 | 8.8 | 31-3 | 0.37 |
| 2 LM LT SP | 52 | 31 | 0.95 | 78 | 32 | 150.5 | 0.711 | 26.8 | 21.6 | 7.0 | 78.0 | 8.6 | 31-1 | 0.29 |
| MILES | | | GP 3774 | | | | 80 PERCENT | | | | | | | |
| 1 SLM LT SP | 42 | 31 | 0.92 | 78 | 38 | 162.7 | 0.876 | 23.2 | 20.2 | 6.3 | 71.0 | 9.9 | 42-1 | 0.22 |
| 2 LM LT SP | 52** | 31 | 0.98 | 79 | 41 | 174.9 | 0.863 | 24.8 | 21.6 | 7.0 | 73.3 | 8.6 | 41-3 | 0.20 |
| NEWCASTLE | | | LANKART 57 | | | | 85 PERCENT | | | | | | | |
| 1 LM LT SP | 52** | 30 | 0.92 | 80 | 40 | 171.4 | 0.798 | 24.6 | 20.5 | 7.2 | 71.7 | 9.4 | 42-1 | 0.16 |
| 2 LM LT SP | 52** | 29 | 0.87 | 79 | 41 | 183.5 | 0.805 | 20.0 | 18.7 | 6.7 | 70.5 | 9.6 | 42-1 | 0.14 |
| STAMFORD | | | LANKART LX-571 | | | | 85 PERCENT | | | | | | | |
| 1 SLM LT SP | 42 | 31 | 0.97 | 79 | 35 | 174.6 | 0.836 | 25.4 | 22.0 | 6.7 | 72.7 | 9.1 | 41-3 | 0.16 |
| 2 SLM LT SP | 42 | 30 | 0.89 | 78 | 38 | 170.3 | 0.822 | 23.6 | 20.4 | 7.1 | 73.5 | 9.0 | 31-4 | 0.17 |
| STAMFORD | | | LANKART 611 | | | | 97 PERCENT | | | | | | | |
| 1 SLM LT SP | 42 | 30 | 0.90 | 79 | 36 | 171.2 | 0.820 | 24.2 | 20.8 | 7.7 | 74.2 | 8.5 | 41-3 | 0.18 |
| 2 SLM LT SP | 42 | 30 | 0.92 | 80 | 35 | 156.3 | 0.780 | 26.2 | 21.4 | 7.9 | 74.0 | 9.5 | 31-3 | 0.15 |
| STANTON | | | TAMCOT SP-21 | | | | 75 PERCENT | | | | | | | |
| 1 SLM LT SP | 42 | 30 | 0.90 | 79 | 36 | 171.2 | 0.820 | 24.2 | 20.8 | 7.7 | 74.2 | 8.5 | 41-3 | 0.18 |
| 2 SLM LT SP | 42 | 30 | 0.92 | 80 | 35 | 156.3 | 0.780 | 26.2 | 21.4 | 7.9 | 74.0 | 9.5 | 31-3 | 0.15 |

*REDUCED FROM 41 BECAUSE OF BARK.
**REDUCED FROM 42 BECAUSE OF BARK.

TABLE 5.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 8s | 22s | BR. FACTOR | 8s | 22s | 8s | 22s | 8s | 22s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **SOUTHWEST** | | | | | | | | | | | | | | |
| **NORTHWEST TEXAS** | | | | | | | | | | | | | | |
| LAMESA | | TAMCOT SP-21 | | | | 75 PERCENT | | | | | | | | |
| 2 LM | 51* | 31 | 2.3 | 4.5 | 7.7 | 300 | 94 | 2234 | 7.8 | 7.0 | 100 | 90 | 30 | 114 | 52 |
| LEVELLAND | | GSA-71 | | | | 85 PERCENT | | | | | | | | |
| 1 SLM | 41 | 32 | 2.7 | 4.4 | 6.5 | 321 | 98 | 2362 | 8.0 | 7.2 | 100 | 100 | 20 | 115 | 52 |
| 2 LM LT SP | 52 | 31 | 2.4 | 4.2 | 6.6 | 311 | 96 | 2300 | 8.2 | 7.7 | 100 | 100 | 31 | 68 | 50 |
| MILES | | GP 3774 | | | | 80 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 31 | 2.9 | 4.0 | 6.7 | 277 | 88 | 2076 | 7.0 | 6.5 | 120 | 100 | 17 | 70 | 40 |
| 2 LM LT SP | 52** | 31 | 1.3 | 2.5 | 7.4 | 297 | 97 | 2255 | 8.0 | 6.5 | 100 | 100 | 14 | 78 | 50 |
| NEWCASTLE | | LANKART 57 | | | | 85 PERCENT | | | | | | | | |
| 1 LM LT SP | 52** | 30 | 3.4 | 5.2 | 7.5 | 288 | 89 | 2131 | 7.2 | 6.5 | 110 | 90 | 21 | 54 | 41 |
| 2 LM LT SP | 52** | 29 | 2.4 | 5.2 | 7.4 | 264 | 80 | 1936 | 6.6 | 5.9 | 110 | 100 | 18 | 123 | 34 |
| STAMFORD | | LANKART LX-571 | | | | 85 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 31 | 1.8 | 3.0 | 6.0 | 297 | 95 | 2233 | 7.5 | 6.7 | 110 | 110 | 15 | 81 | 46 |
| 2 SLM LT SP | 42 | 30 | 1.4 | 2.1 | 6.1 | 290 | 90 | 2150 | 7.4 | 6.5 | 110 | 100 | 39 | 80 | 43 |
| STAMFORD | | LANKART 611 | | | | 97 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 30 | 1.8 | 3.5 | 6.9 | 295 | 89 | 2159 | 7.2 | 6.6 | 110 | 100 | 31 | 150 | 43 |
| 2 SLM LT SP | 42 | 30 | 1.7 | 3.5 | 6.7 | 290 | 90 | 2150 | 7.8 | 6.2 | 110 | 100 | 29 | 122 | 42 |
| STANTON | | TAMCOT SP-21 | | | | 75 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 30 | 1.4 | 3.1 | 5.9 | 306 | 101 | 2335 | 7.5 | 7.0 | 100 | 90 | 19 | 117 | 42 |
| 2 SLM LT SP | 42 | 30 | 2.0 | 4.7 | 6.3 | 295 | 96 | 2236 | 8.2 | 7.2 | 100 | 90 | 29 | 128 | 53 |

*REDUCED FROM 41 BECAUSE OF BARK.
**REDUCED FROM 42 BECAUSE OF BARK.

TABLE 5.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | | FIBER LENGTH | | MICRO-NAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELON-GATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| SOUTHWEST | | | | | | | | | | | | | | |
| NORTHWEST TEXAS | | | | | | | | | | | | | | |
| SUDAN | | QUAPAW | | | | 90 PERCENT | | | | | | | | |
| 1 SLM | 41 | 33 | 0.98 | 78 | 25 | 128.6 | 0.633 | 25.8 | 22.0 | 6.6 | 78.0 | 8.4 | 31-1 | 0.38 |
| 2 LM | 51* | 31 | 0.96 | 78 | 28 | 134.5 | 0.685 | 27.2 | 23.7 | 7.0 | 75.5 | 8.0 | 41-1 | 0.33 |
| TULIA | | GSA-71 | | | | 80 PERCENT | | | | | | | | |
| 1 SLM | 41 | 31 | 0.94 | 79 | 33 | 152.9 | 0.751 | 23.2 | 20.4 | 6.6 | 77.2 | 8.8 | 31-3 | 0.34 |
| 2 LM LT SP | 52** | 33 | 1.00 | 78 | 26 | 131.7 | 0.584 | 26.6 | 23.3 | 8.1 | 75.0 | 8.8 | 31-4 | 0.31 |
| OKLAHOMA | | | | | | | | | | | | | | |
| BRAY | | LANKART 57 | | | | 80 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 31 | 0.95 | 80 | 38 | 170.6 | 0.811 | 22.6 | 21.0 | 6.6 | 72.8 | 10.0 | 32-2 | 0.19 |
| 2 SLM SP | 43 | 31 | 0.98 | 79 | 40 | 170.8 | 0.802 | 22.8 | 19.5 | 6.8 | 66.3 | 10.1 | 43-2 | 0.12 |
| TEMPLE | | LANKART 611 | | | | 90 PERCENT | | | | | | | | |
| 1 LM LT SP | 52** | 31 | 0.96 | 79 | 36 | 166.4 | 0.798 | 24.8 | 21.0 | 7.1 | 70.2 | 9.1 | 42-1 | 0.21 |
| 2 LM LT SP | 52** | 31 | 0.94 | 80 | 37 | 155.8 | 0.837 | 22.6 | 21.0 | 7.4 | 70.2 | 9.2 | 42-1 | 0.15 |
| SOUTH TEXAS | | | | | | | | | | | | | | |
| CORPUS CHRISTI | | CASCOT C-13 | | | | 70 PERCENT | | | | | | | | |
| 1 M | 31 | 32 | 0.99 | 77 | 36 | 147.5 | 0.873 | 22.2 | 21.1 | 6.6 | 79.3 | 9.6 | 11-4 | 0.41 |
| 2 M | 31 | 32 | 1.01 | 78 | 34 | 147.6 | 0.843 | 22.0 | 21.6 | 6.0 | 78.8 | 9.3 | 21-3 | 0.54 |

*AVERAGING RULE USED.
**REDUCED FROM 42 BECAUSE OF BARK.

TABLE 5.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 8s | 22s | BR. FACTOR | 8s | 22s | 8s | 22s | 8s | 22s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **SOUTHWEST** | | | | | | | | | | | | | | |
| **NORTHWEST TEXAS** | | | | | | | | | | | | | | |
| SUDAN | | QUAPAW | | | | 90 PERCENT | | | | | | | | |
| 1 SLM | 41 | 2.4 | 4.9 | 6.1 | 317 | 102 | 2390 | 8.6 | 6.8 | 100 | 100 | 15 | 95 | 50 |
| 2 LM | 51* | 3.3 | 5.1 | 8.0 | 301 | 96 | 2260 | 8.2 | 7.0 | 100 | 100 | 18 | 88 | 47 |
| TULIA | | GSA-71 | | | | 80 PERCENT | | | | | | | | |
| 1 SLM | 41 | 2.3 | 3.9 | 6.7 | 294 | 95 | 2221 | 8.4 | 7.0 | 110 | 100 | 10 | 75 | 45 |
| 2 LM LT SP | 52** | 3.6 | 6.1 | 8.0 | 318 | 97 | 2339 | 9.6 | 7.8 | 100 | 90 | 24 | 87 | 52 |
| **OKLAHOMA** | | | | | | | | | | | | | | |
| BRAY | | LANKART 57 | | | | 80 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 1.7 | 3.1 | 8.4 | 296 | 94 | 2218 | 7.4 | 6.5 | 100 | 100 | 16 | 101 | 48 |
| 2 SLM SP | 43 | 2.3 | 4.6 | 7.0 | 273 | 86 | 2038 | 6.5 | 6.0 | 100 | 100 | 24 | 106 | 39 |
| TEMPLE | | LANKART 611 | | | | 90 PERCENT | | | | | | | | |
| 1 LM LT SP | 52** | 3.3 | 5.2 | 7.5 | 289 | 92 | 2168 | 6.8 | 6.0 | 90 | 100 | 19 | 151 | 45 |
| 2 LM LT SP | 52** | 3.1 | 4.9 | 8.2 | 292 | 93 | 2191 | 7.0 | 6.1 | 100 | 100 | 12 | 151 | 47 |
| **SOUTH TEXAS** | | | | | | | | | | | | | | |
| CORPUS CHRISTI | | CASCOT C-13 | | | | 70 PERCENT | | | | | | | | |
| 1 M | 31 | 1.6 | 2.7 | 6.1 | 280 | 84 | 2044 | 6.7 | 5.9 | 110 | 110 | 32 | 80 | 42 |
| 2 M | 31 | 1.9 | 3.1 | 8.3 | 299 | 97 | 2263 | 7.5 | 6.6 | 100 | 110 | 13 | 73 | 49 |

*AVERAGING RULE USED.
**REDUCED FROM 42 BECAUSE OF BARK.

TABLE 5A.--COTTON, AMERICAN UPLAND SHORT STAPLE: QUALITY CHARACTERISTICS OF OPEN-END SPUN YARN BY PRODUCTION AREA AND CLASSIFACATION, CROP OF 1984.

| PRODUCTION AREA AND CLASSIFICATION | | | PROCESSING TEST RESULTS - CARDED OPEN-END YARN | | | | |
|---|---|---|---|---|---|---|---|
| | | | YARN SKEIN STRENGTH | | ELONGATION | APPEARANCE INDEX | NEPS PER 1000 YARDS |
| NO. : | NAME : CODE : | STAPLE | 8s | : BREAK FACTOR | 8s | 8s | 8s |
| | | 32ND | LBS. | NO. | PCT. | NO. | NO. |
| | SOUTHWEST | | | | | | |
| | CENTRAL TEXAS | | | | | | |
| | AQUILLA | | GP 3774 | | 90 PERCENT | | |
| 1 | SLM | 41 30 | 250 | 2000 | 7.0 | 110 | 0 |
| 2 | SLM PLUS | 40 31 | 248 | 1984 | 7.4 | 110 | 0 |
| | MALONE | | LANKART LX-571 | | 95 PERCENT | | |
| 1 | M LT SP | 32 31 | 236 | 1888 | 6.9 | 120 | 6 |
| 2 | M LT SP | 32 31 | 238 | 1904 | 7.0 | 120 | 0 |
| | KANSAS | | | | | | |
| | STERLING | | CASCOT C-13 | | 70 PERCENT | | |
| 1 | LM TG | 54 34 | 230 | 1840 | 7.0 | 100 | 2 |
| 2 | LM TG | 54* 33 | ** | ** | ** | ** | ** |
| | NORTHWEST TEXAS | | | | | | |
| | BOVINA | | PAYMASTER 792 | | 85 PERCENT | | |
| 1 | SGO LT SP | 62*** 33 | 266 | 2128 | 8.2 | 100 | 2 |
| 2 | SGO LT SP | 62*** 33 | 275 | 2200 | 7.8 | 110 | 4 |
| | | # | | | | | |
| | BULA | | TAMCOT SP-21 | | 80 PERCENT | | |
| 1 | LM | 51 32 | 265 | 2120 | 8.0 | 110 | 5 |
| 2 | LM LT SP | 52## 31 | 254 | 2032 | 8.0 | 90 | 1 |
| | COTTON CENTER | | GSA-71 | | 70 PERCENT | | |
| 1 | SLM | 41 33 | 267 | 2136 | 7.6 | 110 | 0 |
| 2 | LM LT SP | 52## 33 | 260 | 2080 | 8.1 | 100 | 1 |

*REDUCED FROM 44 BECAUSE OF BARK.
**INSUFFICIENT COTTON FOR OPEN-END SPINNING TESTS.
***REDUCED FROM 52 BECAUSE OF BARK.
#AVERAGING RULE USED.
##REDUCED FROM 42 BECAUSE OF BARK.

TABLE 5A.-- CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | | | PROCESSING TEST RESULTS - CARDED OPEN-END YARN | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | YARN SKEIN STRENGTH | | ELONGATION | APPEARANCE INDEX | NEPS PER 1000 YARDS |
| NO. | NAME | CODE | STAPLE | 8s | BREAK FACTOR | 8s | 8s | 8s |
| | | | 32ND | LBS. | NO. | PCT. | NO. | NO. |
| | **SOUTHWEST** | | | | | | | |
| | **NORTHWEST TEXAS** | | | | | | | |
| | LAMESA | | | TAMCOT SP-21 | | 75 PERCENT | | |
| 2 | LM | 51* | 31 | 255 | 2040 | 8.2 | 100 | 5 |
| | LEVELLAND | | | GSA-71 | | 85 PERCENT | | |
| 1 | SLM | 41 | 32 | 261 | 2088 | 7.8 | 110 | 16 |
| 2 | LM LT SP | 52 | 31 | 256 | 2048 | 8.4 | 90 | 3 |
| | MILES | | | GP 3774 | | 80 PERCENT | | |
| 1 | SLM LT SP | 42 | 31 | 238 | 1904 | 7.3 | 110 | 0 |
| 2 | LM LT SP | 52** | 31 | 244 | 1952 | 7.6 | 100 | 0 |
| | NEWCASTLE | | | LANKART 57 | | 85 PERCENT | | |
| 1 | LM LT SP | 52** | 30 | 228 | 1824 | 7.3 | 120 | 6 |
| 2 | LM LT SP | 52** | 29 | 205 | 1640 | 6.7 | 110 | 3 |
| | STAMFORD | | | LANKART LX-571 | | 85 PERCENT | | |
| 1 | SLM LT SP | 42 | 31 | 246 | 1968 | 6.5 | 110 | 4 |
| 2 | SLM LT SP | 42 | 30 | 235 | 1880 | 6.7 | 110 | 11 |
| | STAMFORD | | | LANKART 611 | | 97 PERCENT | | |
| 1 | SLM LT SP | 42 | 30 | 236 | 1888 | 7.7 | 100 | 4 |
| 2 | SLM LT SP | 42 | 30 | 236 | 1888 | 7.8 | 110 | 4 |
| | STANTON | | | TAMCOT SP-21 | | 75 PERCENT | | |
| 1 | SLM LT SP | 42 | 30 | 261 | 2088 | 7.5 | 100 | 5 |
| 2 | SLM LT SP | 42 | 30 | 246 | 1968 | 8.5 | 100 | 1 |

*REDUCED FROM 41 BECAUSE OF BARK.
**REDUCED FROM 42 BECAUSE OF BARK.

TABLE 5A.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | | PROCESSING TEST RESULTS - CARDED OPEN-END YARN | | | | |
|---|---|---|---|---|---|---|---|
| | | | YARN SKEIN STRENGTH | | ELONGATION | APPEARANCE INDEX | NEPS PER 1000 YARDS |
| NO. | NAME | CODE / STAPLE | 8s | BREAK FACTOR | 8s | 8s | 8s |
| | | 32ND | LBS. | NO. | PCT. | NO. | NO. |
| | **SOUTHWEST** | | | | | | |
| | **NORTHWEST TEXAS** | | | | | | |
| | SUDAN | | QUAPAW | | 90 PERCENT | | |
| 1 | SLM | 41 / 33 | 268 | 2144 | 7.5 | 110 | 0 |
| 2 | LM | 51* / 31 | 261 | 2088 | 7.7 | 100 | 2 |
| | TULIA | | GSA-71 | | 80 PERCENT | | |
| 1 | SLM | 41 / 31 | 248 | 1984 | 7.9 | 110 | 1 |
| 2 | LM LT SP | 52** / 33 | 256 | 2048 | 8.2 | 90 | 1 |
| | OKLAHOMA | | | | | | |
| | BRAY | | LANKART 57 | | 80 PERCENT | | |
| 1 | SLM LT SP | 42 / 31 | 226 | 1808 | 7.0 | 110 | 0 |
| 2 | SLM SP | 43 / 31 | 221 | 1768 | 7.0 | 110 | 2 |
| | TEMPLE | | LANKART 611 | | 90 PERCENT | | |
| 1 | LM LT SP | 52** / 31 | 226 | 1808 | 7.4 | 110 | 2 |
| 2 | LM LT SP | 52** / 31 | 235 | 1880 | 7.3 | 110 | 1 |
| | SOUTH TEXAS | | | | | | |
| | CORPUS CHRISTI | | CASCOT C-13 | | 70 PERCENT | | |
| 1 | M | 31 / 32 | 230 | 1840 | 7.0 | 110 | 1 |
| 2 | M | 31 / 32 | 259 | 2072 | 7.1 | 110 | 3 |

*AVERAGING RULE USED.
**REDUCED FROM 42 BECAUSE OF BARK.

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TABLE 6.--COTTON, AMERICAN UPLAND MEDIUM STAPLE: QUALITY CHARACTERISTICS BY PRODUCTION AREA AND CLASSIFICATION, CROP OF 1984.

| PRODUCTION AREA AND CLASSIFICATION | | | FIBER LENGTH | | MICRO-NAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELON-GATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| **SOUTHEAST** | | | | | | | | | | | | | | |
| **ALABAMA** | | | | | | | | | | | | | | |
| MADISON | | | STONEVILLE 825 | | | 95 PERCENT | | | | | | | | |
| 1 SLM PLUS | 40 | 36 | 1.12 | 82 | 45 | 190.9 | 0.928 | 25.4 | 22.1 | 6.1 | 79.2 | 8.6 | 21-2 | 0.42 |
| 2 SLM | 41 | 36 | 1.09 | 80 | 41 | 181.4 | 0.862 | 25.8 | 23.6 | 6.0 | 79.0 | 8.2 | 31-1 | 0.41 |
| MONTGOMERY | | | DELTAPINE 90 | | | 100 PERCENT | | | | | | | | |
| 1 SLM | 41 | 35 | 1.10 | 79 | 38 | 161.4 | 0.865 | 27.4 | 25.7 | 6.6 | 75.0 | 8.3 | 41-1 | 0.38 |
| 2 SLM LT SP | 42 | 35 | 1.08 | 80 | 47 | 181.5 | 0.948 | 27.0 | 23.4 | 6.4 | 70.0 | 8.2 | 41-4 | 0.19 |
| OPELIKA | | | DELTAPINE 41 | | | 93 PERCENT | | | | | | | | |
| 1 SLM PLUS | 40 | 35 | 1.11 | 79 | 42 | 179.3 | 0.931 | 25.6 | 23.8 | 6.5 | 77.5 | 9.2 | 21-4 | 0.32 |
| 2 M | 31 | 35 | 1.03 | 79 | 43 | 170.7 | 0.924 | 26.4 | 24.1 | 5.9 | 78.7 | 8.8 | 21-2 | 0.31 |
| TYLER | | | DELTAPINE 61 | | | 88 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 1.19 | 82 | 47 | 184.6 | 0.978 | 26.8 | 23.5 | 6.5 | 79.7 | 8.5 | 21-1 | 0.37 |
| 2 SLM | 41 | 36 | 1.18 | 82 | 46 | 179.7 | 0.932 | 26.4 | 25.6 | 6.2 | 76.7 | 8.1 | 31-2 | 0.26 |
| **FLORIDA** | | | | | | | | | | | | | | |
| JAY | | | DELTAPINE 41 | | | 95 PERCENT | | | | | | | | |
| 1 SLM | 41 | 35 | 1.08 | 80 | 43 | 165.6 | 0.954 | 25.8 | 24.3 | 6.5 | 77.5 | 8.7 | 31-3 | 0.36 |
| 2 SLM | 41 | 35 | 1.09 | 79 | 42 | 154.1 | 1.012 | 24.6 | 21.9 | 5.4 | 74.0 | 8.1 | 41-3 | 0.34 |
| **GEORGIA** | | | | | | | | | | | | | | |
| ELBERTON | | | COKER 315 | | | 90 PERCENT | | | | | | | | |
| 1 LM | 51 | 35 | 1.07 | 80 | 36 | 168.1 | 0.803 | 26.8 | 23.3 | 6.1 | 72.0 | 7.9 | 41-4 | 0.35 |
| 2 LM | 51 | 35 | 1.05 | 79 | 35 | 161.9 | 0.779 | 24.6 | 22.3 | 5.9 | 72.0 | 7.9 | 41-4 | 0.20 |
| HAWKINSVILLE | | | STONEVILLE 825 | | | 80 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.08 | 82 | 51 | 194.5 | 0.974 | 23.6 | 23.3 | 6.4 | 79.0 | 8.6 | 21-2 | 0.42 |
| 2 SLM | 41 | 35 | 1.11 | 81 | 44 | 179.8 | 0.904 | 25.0 | 23.0 | 6.1 | 75.0 | 8.1 | 41-4 | 0.38 |
| METTER | | | MCNAIR 220 | | | 90 PERCENT | | | | | | | | |
| 1 SLM | 41 | 36 | 1.08 | 80 | 41 | 168.4 | 0.891 | 26.4 | 23.7 | 5.7 | 73.7 | 8.2 | 41-3 | 0.28 |
| 2 SLM | 41 | 35 | 1.08 | 80 | 44 | 162.7 | 0.909 | 24.8 | 24.0 | 6.2 | 74.7 | 8.5 | 31-4 | 0.26 |

TABLE 6.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **SOUTHEAST** | | | | | | | | | | | | | | |
| **ALABAMA** | | | | | | | | | | | | | | |
| MADISON | | STONEVILLE 825 | | | | 95 PERCENT | | | | | | | | |
| 1 SLM PLUS | 40 | 0.9 | 1.4 | 7.8 | 104 | 33 | 1969 | 6.6 | 4.5 | 100 | 60 | 209 | 894 | 59 |
| 2 SLM | 41 | 1.4 | 2.2 | 6.7 | 101 | 33 | 1936 | 6.8 | 4.8 | 100 | 70 | 127 | 948 | 57 |
| MONTGOMERY | | DELTAPINE 90 | | | | 100 PERCENT | | | | | | | | |
| 1 SLM | 41 | 1.3 | 2.2 | 5.6 | 117 | 39 | 2262 | 6.9 | 5.1 | 110 | 80 | 65 | 710 | 70 |
| 2 SLM LT SP | 42 | 1.5 | 2.6 | 5.7 | 106 | 34 | 2016 | 5.7 | 4.6 | 110 | 70 | 105 | 843 | 57 |
| OPELIKA | | DELTAPINE 41 | | | | 93 PERCENT | | | | | | | | |
| 1 SLM PLUS | 40 | 1.2 | 2.1 | 5.4 | 105 | 32 | 1955 | 6.0 | 4.0 | 100 | 70 | 168 | 1263 | 55 |
| 2 M | 31 | 0.6 | 1.4 | 7.4 | 103 | 31 | 1908 | 6.4 | 4.4 | 100 | 80 | 63 | 905 | 52 |
| TYLER | | DELTAPINE 61 | | | | 88 PERCENT | | | | | | | | |
| 1 M | 31 | 0.7 | 1.1 | 5.3 | 111 | 39 | 2196 | 6.5 | 5.0 | 120 | 80 | 135 | 764 | 71 |
| 2 SLM | 41 | 1.5 | 2.5 | 5.6 | 117 | 40 | 2287 | 6.9 | 5.4 | 100 | 90 | 90 | 605 | 68 |
| **FLORIDA** | | | | | | | | | | | | | | |
| JAY | | DELTAPINE 41 | | | | 95 PERCENT | | | | | | | | |
| 1 SLM | 41 | 1.9 | 2.7 | 6.7 | 106 | 34 | 2016 | 6.7 | 4.9 | 100 | 70 | 170 | 904 | 59 |
| 2 SLM | 41 | 1.8 | 3.6 | 6.7 | 108 | 35 | 2063 | 6.8 | 5.0 | 100 | 70 | 127 | 1038 | 61 |
| **GEORGIA** | | | | | | | | | | | | | | |
| ELBERTON | | COKER 315 | | | | 90 PERCENT | | | | | | | | |
| 1 LM | 51 | 3.2 | 3.9 | 7.0 | 115 | 39 | 2240 | 6.7 | 4.8 | 110 | 90 | 92 | 579 | 69 |
| 2 LM | 51 | 2.5 | 3.7 | 6.9 | 104 | 35 | 2019 | 6.5 | 5.2 | 100 | 70 | 90 | 741 | 57 |
| HAWKINSVILLE | | STONEVILLE 825 | | | | 80 PERCENT | | | | | | | | |
| 1 M | 31 | 1.4 | 2.4 | 5.1 | 103 | 31 | 1908 | 5.8 | 4.1 | 100 | 70 | 121 | 931 | 54 |
| 2 SLM | 41 | 1.7 | 2.4 | 5.6 | 105 | 35 | 2030 | 6.3 | 4.4 | 130 | 90 | 61 | 751 | 62 |
| METTER | | MCNAIR 220 | | | | 90 PERCENT | | | | | | | | |
| 1 SLM | 41 | 1.9 | 2.9 | 5.4 | 110 | 33 | 2035 | 6.0 | 4.7 | 100 | 70 | 111 | 797 | 63 |
| 2 SLM | 41 | 1.7 | 2.1 | 5.4 | 108 | 37 | 2113 | 6.5 | 4.8 | 110 | 90 | 105 | 692 | 65 |

TABLE 6.-- CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| SOUTHEAST | | | | | | | | | | | | | |
| NORTH CAROLINA | | | | | | | | | | | | | |
| HERTFORD | | MCNAIR 235 | | | 75 PERCENT | | | | | | | | |
| 1 SLM | 41 | 1.14 | 81 | 39 | 171.6 | 0.885 | 26.2 | 22.9 | 6.3 | 74.2 | 8.0 | 41-1 | 0.42 |
| 2 LM LT SP | 52 | 1.11 | 81 | 35 | 162.7 | 0.783 | 26.4 | 24.1 | 6.1 | 65.8 | 7.9 | 51-3 | 0.26 |
| SOUTH CAROLINA | | | | | | | | | | | | | |
| AIKEN | | COKER 315 | | | 100 PERCENT | | | | | | | | |
| 1 SLM | 41 | 1.14 | 79 | 38 | 154.2 | 0.804 | 26.8 | 24.2 | 6.0 | 76.8 | 8.7 | 31-3 | 0.40 |
| 2 SGO LT SP | 62* | 1.12 | 80 | 35 | 163.4 | 0.770 | 26.4 | 22.5 | 6.8 | 71.5 | 8.6 | 41-4 | 0.26 |
| CLIO | | MCNAIR 235 | | | 90 PERCENT | | | | | | | | |
| 1 LM PLUS | 50 | 1.11 | 80 | 36 | 161.1 | 0.860 | 26.2 | 22.9 | 6.2 | 74.5 | 8.2 | 41-3 | 0.25 |
| 2 LM LT SP | 52** | 1.08 | 79 | 42 | 157.1 | 0.819 | 26.0 | 23.8 | 6.7 | 73.0 | 8.3 | 41-3 | 0.17 |
| SOUTH CENTRAL | | | | | | | | | | | | | |
| ARKANSAS | | | | | | | | | | | | | |
| ALTHEIMER | | DELTAPINE 61 | | | 100 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 1.15 | 79 | 37 | 159.4 | 0.832 | 25.2 | 22.2 | 6.0 | 71.5 | 8.4 | 41-4 | 0.32 |
| 2 LM LT SP | 52 | 1.15 | 80 | 42 | 181.9 | 0.853 | 26.4 | 21.5 | 5.6 | 69.3 | 7.5 | 51-3 | 0.15 |
| DUMAS | | STONEVILLE 506 | | | 100 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 1.17 | 81 | 43 | 182.3 | 0.877 | 25.4 | 21.7 | 6.7 | 69.0 | 8.6 | 41-4 | 0.21 |
| 2 SLM LT SP | 42 | 1.12 | 79 | 37 | 163.7 | 0.822 | 24.4 | 22.4 | 6.3 | 74.2 | 8.5 | 41-3 | 0.19 |
| HUGHES | | DELTAPINE 41 | | | 100 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 1.15 | 79 | 35 | 148.9 | 0.800 | 24.8 | 21.9 | 6.1 | 68.0 | 9.3 | 42-2 | 0.21 |
| 2 LM LT SP | 52 | 1.09 | 77 | 32 | 159.3 | 0.780 | 22.8 | 20.9 | 6.0 | 69.5 | 8.4 | 41-4 | 0.24 |

*REDUCED FROM 52 BECAUSE OF BARK.
**REDUCED FROM 42 BECAUSE OF GRASS.

TABLE 6.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | SPY |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **SOUTHEAST** | | | | | | | | | | | | | | |
| **NORTH CAROLINA** | | | | | | | | | | | | | | |
| HERTFORD | | MCNAIR 235 | | | | 75 PERCENT | | | | | | | | |
| 1 SLM | 41 | 36 | 2.4 | 3.8 | 6.7 | 115 | 39 | 2240 | 6.8 | 5.0 | 100 | 90 | 114 | 623 | 75 |
| 2 LM LT SP | 52 | 36 | 3.5 | 4.5 | 6.9 | 117 | 40 | 2287 | 7.0 | 5.8 | 100 | 70 | 107 | 582 | 70 |
| **SOUTH CAROLINA** | | | | | | | | | | | | | | |
| AIKEN | | COKER 315 | | | | 100 PERCENT | | | | | | | | |
| 1 SLM | 41 | 35 | 2.8 | 4.0 | 6.7 | 107 | 36 | 2077 | 6.8 | 5.2 | 100 | 60 | 288 | 1223 | 64 |
| 2 SGO LT SP | 62* | 36 | 4.6 | 5.5 | 7.9 | 105 | 35 | 2030 | 6.5 | 4.8 | 110 | 70 | 136 | 836 | 65 |
| CLIO | | MCNAIR 235 | | | | 90 PERCENT | | | | | | | | |
| 1 LM PLUS | 50 | 36 | 2.4 | 3.4 | 6.0 | 112 | 37 | 2157 | 6.2 | 4.5 | 100 | 80 | 136 | 731 | 65 |
| 2 LM LT SP | 52** | 36 | 2.1 | 4.3 | 6.0 | 108 | 36 | 2088 | 6.8 | 4.8 | 110 | 80 | 86 | 683 | 65 |
| **SOUTH CENTRAL** | | | | | | | | | | | | | | |
| **ARKANSAS** | | | | | | | | | | | | | | |
| ALTHEIMER | | DELTAPINE 61 | | | | 100 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 36 | 2.4 | 3.4 | 7.6 | 91 | 29 | 1726 | 6.6 | 4.5 | 100 | 60 | 154 | 1412 | 49 |
| 2 LM LT SP | 52 | 36 | 2.6 | 4.0 | 8.1 | 94 | 33 | 1859 | 5.5 | 5.0 | 90 | 60 | 156 | 831 | 52 |
| DUMAS | | STONEVILLE 506 | | | | 100 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 37 | 1.4 | 3.0 | 5.9 | 100 | 32 | 1900 | 6.5 | 4.2 | 120 | 80 | 109 | 787 | 60 |
| 2 SLM LT SP | 42 | 36 | 1.4 | 2.5 | 6.0 | 97 | 32 | 1867 | 6.0 | 5.6 | 110 | 70 | 62 | 765 | 54 |
| HUGHES | | DELTAPINE 41 | | | | 100 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 36 | 1.5 | 3.8 | 6.7 | 91 | 29 | 1726 | 5.8 | 4.4 | 90 | 60 | 150 | 1693 | 53 |
| 2 LM LT SP | 52 | 36 | 1.6 | 3.1 | 6.6 | 89 | 28 | 1679 | 5.8 | 4.0 | 100 | 60 | 142 | 1449 | 50 |

*REDUCED FROM 52 BECAUSE OF BARK.
**REDUCED FROM 42 BECAUSE OF GRASS.

TABLE 6.-- CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | FIBER LENGTH | | | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELON- | COLOR OF RAW STOCK | | | SUGAR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | HVI UHM | M/UHM UNIF. | MICRONAIRE | FIN. | MAT. | HVI | STEL. | GATION | Rd | +b | COLOR CODE | CONTENT |
| NO.-NAME-CODE | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| **SOUTH CENTRAL** | | | | | | | | | | | | | |
| **ARKANSAS** | | | | | | | | | | | | | |
| LEPANTO | | DELTAPINE 41 | | | 78 PERCENT | | | | | | | | |
| 1 SLM | 41 | 1.19 | 82 | 45 | 179.5 | 0.943 | 28.6 | 25.6 | 5.9 | 77.5 | 8.1 | 31-1 | 0.22 |
| 2 LM LT SP | 52 | 1.15 | 79 | 41 | 166.1 | 0.874 | 25.8 | 23.4 | 6.4 | 69.3 | 8.1 | 51-3 | 0.18 |
| MCGEHEE | | DELTAPINE 55 | | | 85 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 1.13 | 78 | 42 | 177.1 | 0.867 | 23.4 | 20.9 | 6.0 | 69.2 | 9.0 | 42-2 | 0.09 |
| 2 LM LT SP | 52 | 1.09 | 79 | 40 | 167.5 | 0.839 | 24.0 | 20.2 | 6.1 | 72.7 | 8.6 | 41-3 | 0.20 |
| PORTLAND | | DELTAPINE NSL | | | 75 PERCENT | | | | | | | | |
| 1 SLM | 41 | 1.16 | 80 | 38 | 166.3 | 0.842 | 27.2 | 23.5 | 6.0 | 77.7 | 8.2 | 31-1 | 0.33 |
| 2 LM LT SP | 52 | 1.15 | 81 | 42 | 170.7 | 0.852 | 26.0 | 21.4 | 7.2 | 66.7 | 8.4 | 51-3 | 0.21 |
| RECTOR | | STONEVILLE 506 | | | 82 PERCENT | | | | | | | | |
| 1 M | 31 | 1.08 | 81 | 48 | 195.4 | 0.928 | 26.8 | 23.2 | 6.4 | 77.0 | 9.0 | 31-3 | 0.22 |
| 2 LM | 51 | 1.10 | 80 | 42 | 181.9 | 0.902 | 26.2 | 21.9 | 6.4 | 72.5 | 8.3 | 41-3 | 0.15 |
| TYRONZA | | STONEVILLE 825 | | | 95 PERCENT | | | | | | | | |
| 1 SLM | 41 | 1.13 | 81 | 46 | 188.0 | 0.920 | 27.0 | 23.8 | 5.2 | 76.3 | 8.6 | 31-3 | 0.21 |
| 2 LM LT SP | 52 | 1.10 | 79 | 44 | 181.1 | 0.911 | 26.8 | 21.1 | 5.4 | 66.5 | 7.4 | 51-4 | 0.17 |
| WATSON | | STONEVILLE 825 | | | 70 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 1.10 | 79 | 42 | 174.1 | 0.879 | 24.8 | 21.0 | 6.0 | 69.3 | 8.3 | 41-4 | 0.20 |
| 2 LM LT SP | 52 | 1.11 | 78 | 39 | 175.9 | 0.862 | 25.2 | 20.5 | 6.1 | 70.8 | 8.3 | 41-4 | 0.18 |
| **LOUISIANA** | | | | | | | | | | | | | |
| BONITA | | DELTAPINE 41 | | | 95 PERCENT | | | | | | | | |
| 1 SLM PLUS | 40 | 1.19 | 81 | 41 | 168.3 | 0.892 | 27.4 | 24.6 | 5.9 | 78.0 | 8.5 | 31-1 | 0.36 |
| 2 LM LT SP | 52 | 1.11 | 79 | 40 | 170.1 | 0.861 | 24.8 | 21.7 | 5.9 | 70.5 | 8.0 | 41-4 | 0.17 |
| LAKE PROVIDENCE | | STONEVILLE 825 | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 1.12 | 80 | 43 | 176.2 | 0.930 | 26.2 | 22.5 | 5.8 | 77.8 | 8.5 | 31-1 | 0.34 |
| 2 SLM LT SP | 42 | 1.09 | 80 | 39 | 169.8 | 0.860 | 24.0 | 20.1 | 5.9 | 72.5 | 7.9 | 41-2 | 0.18 |
| SICILY ISLAND | | STONEVILLE 825 | | | 100 PERCENT | | | | | | | | |
| 1 SLM PLUS | 40 | 1.13 | 81 | 48 | 197.7 | 0.975 | 24.6 | 23.0 | 5.4 | 75.5 | 8.3 | 31-2 | 0.28 |
| 2 LM LT SP | 52 | 1.11 | 80 | 45 | 185.3 | 0.912 | 24.4 | 21.3 | 5.6 | 66.0 | 8.2 | 51-4 | 0.18 |

TABLE 6.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | SPY |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **SOUTH CENTRAL** | | | | | | | | | | | | | | |
| **ARKANSAS** | | | | | | | | | | | | | | |
| LEPANTO | | DELTAPINE 41 | | | | 78 PERCENT | | | | | | | | |
| 1 SLM | 41 | 38 | 2.4 | 3.2 | 6.8 | 121 | 43 | 2406 | 6.5 | 5.0 | 110 | 80 | 114 | 355 | 72 |
| 2 LM LT SP | 52 | 37 | 2.0 | 3.1 | 7.4 | 94 | 30 | 1784 | 5.9 | 4.2 | 100 | 70 | 33 | 1204 | 52 |
| MCGEHEE | | DELTAPINE 55 | | | | 85 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 36 | 1.3 | 1.8 | 5.9 | 90 | 29 | 1715 | 5.9 | 4.0 | 110 | 70 | 119 | 1147 | 50 |
| 2 LM LT SP | 52 | 35 | 1.4 | 3.0 | 6.3 | 86 | 29* | 1671 | 5.5 | 4.9 | 110 | 70 | 80 | 843 | 47 |
| PORTLAND | | DELTAPINE NSL | | | | 75 PERCENT | | | | | | | | |
| 1 SLM | 41 | 37 | 1.9 | 3.0 | 6.5 | 107 | 36 | 2077 | 6.7 | 5.0 | 100 | 70 | 155 | 908 | 60 |
| 2 LM LT SP | 52 | 37 | 1.8 | 2.8 | 6.3 | 96 | 31 | 1831 | 6.0 | 4.4 | 120 | 70 | 123 | 1016 | 58 |
| RECTOR | | STONEVILLE 506 | | | | 82 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.5 | 2.4 | 5.4 | 103 | 36 | 2033 | 6.3 | 4.7 | 110 | 80 | 140 | 839 | 54 |
| 2 LM | 51 | 35 | 1.7 | 3.6 | 6.6 | 91 | 29* | 1726 | 5.8 | 4.6 | 70 | 70 | 74 | 667 | 46 |
| TYRONZA | | STONEVILLE 825 | | | | 95 PERCENT | | | | | | | | |
| 1 SLM | 41 | 37 | 2.3 | 3.4 | 6.8 | 107 | 36 | 2077 | 6.0 | 5.0 | 100 | 70 | 142 | 913 | 63 |
| 2 LM LT SP | 52 | 35 | 1.7 | 2.9 | 7.9 | 83 | 26* | 1563 | 5.4 | 4.7 | 100 | 60 | 132 | 1036 | 38 |
| WATSON | | STONEVILLE 825 | | | | 70 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 35 | 1.1 | 3.4 | 6.8 | 88 | 28* | 1668 | 5.5 | 4.9 | 90 | 60 | 187 | 1173 | 49 |
| 2 LM LT SP | 52 | 35 | 1.3 | 2.9 | 6.3 | 87 | 27* | 1632 | 5.8 | 5.6 | 110 | 70 | 160 | 1033 | 49 |
| **LOUISIANA** | | | | | | | | | | | | | | |
| BONITA | | DELTAPINE 41 | | | | 95 PERCENT | | | | | | | | |
| 1 SLM PLUS | 40 | 37 | 1.5 | 2.5 | 5.4 | 111 | 39 | 2196 | 6.5 | 4.5 | 100 | 70 | 103 | 468 | 64 |
| 2 LM LT SP | 52 | 36 | 1.7 | 2.8 | 6.6 | 100 | 32 | 1900 | 6.0 | 4.5 | 100 | 70 | 65 | 867 | 58 |
| LAKE PROVIDENCE | | STONEVILLE 825 | | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.2 | 2.2 | 6.5 | 98 | 29 | 1803 | 5.7 | 4.1 | 100 | 60 | 203 | 1020 | 49 |
| 2 SLM LT SP | 42 | 35 | 1.4 | 3.1 | 6.5 | 93 | 30 | 1773 | 6.1 | 4.8 | 90 | 60 | 163 | 1141 | 51 |
| SICILY ISLAND | | STONEVILLE 825 | | | | 100 PERCENT | | | | | | | | |
| 1 SLM PLUS | 40 | 35 | 1.9 | 2.9 | 6.4 | 99 | 31 | 1864 | 5.9 | 4.0 | 100 | 70 | 127 | 747 | 56 |
| 2 LM LT SP | 52 | 35 | 2.2 | 3.8 | 7.6 | 87 | 27 | 1632 | 6.0 | 3.4 | 100 | 70 | 48 | 1337 | 48 |

*END BREAKAGE TOO HIGH TO SPIN 50s YARN. 44s YARN SPUN AND STRENGTH ADJUSTED TO 50s.

TABLE 6.-- CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| SOUTH CENTRAL | | | | | | | | | | | | | |
| LOUISIANA | | | | | | | | | | | | | |
| ST. JOSEPH | | DELTAPINE 41 | | | | 95 PERCENT | | | | | | | |
| 1 SLM PLUS | 40 | 1.14 | 79 | 39 | 173.9 | 0.938 | 27.6 | 23.9 | 5.5 | 78.5 | 8.2 | 31-1 | 0.38 |
| 2 LM LT SP | 52 | 1.16 | 81 | 43 | 173.5 | 0.918 | 25.6 | 22.5 | 5.9 | 67.5 | 8.2 | 51-3 | 0.15 |
| MISSISSIPPI | | | | | | | | | | | | | |
| ASHLAND | | MCNAIR 235 | | | | 75 PERCENT | | | | | | | |
| 1 LM LT SP | 52 | 1.12 | 80 | 40 | 168.6 | 0.851 | 25.4 | 21.7 | 6.5 | 69.0 | 8.5 | 41-4 | 0.17 |
| 2 LM LT SP | 52 | 1.08 | 78 | 36 | 161.3 | 0.857 | 24.2 | 21.1 | 6.7 | 69.0 | 8.7 | 41-4 | 0.16 |
| ARCOLA | | DELTAPINE 150 | | | | 100 PERCENT | | | | | | | |
| 1 SM | 21 | 1.15 | 81 | 45 | 181.4 | 0.931 | 25.0 | 22.2 | 8.0 | 81.0 | 8.8 | 11-2 | 0.42 |
| 2 LM LT SP | 52 | 1.11 | 79 | 39 | 165.1 | 0.811 | 23.6 | 21.6 | 6.9 | 66.0 | 8.1 | 51-4 | 0.18 |
| CARY | | DELTAPINE 55 | | | | 80 PERCENT | | | | | | | |
| 1 M | 31 | 1.12 | 78 | 41 | 169.0 | 0.893 | 25.0 | 22.7 | 6.3 | 80.5 | 8.4 | 21-1 | 0.50 |
| 2 LM LT SP | 52 | 1.15 | 79 | 42 | 150.2 | 1.003 | 25.0 | 22.0 | 6.0 | 67.0 | 7.9 | 51-4 | 0.22 |
| GREENVILLE | | STONEVILLE 825 | | | | 100 PERCENT | | | | | | | |
| 1 SLM | 41 | 1.15 | 81 | 45 | 181.5 | 0.915 | 25.4 | 22.4 | 6.7 | 74.5 | 8.4 | 41-3 | 0.27 |
| 2 LM LT SP | 52 | 1.11 | 79 | 44 | 182.3 | 0.885 | 24.2 | 20.6 | 5.3 | 68.7 | 8.4 | 51-3 | 0.18 |
| GREENWOOD | | STONEVILLE 825 | | | | 100 PERCENT | | | | | | | |
| 1 M | 31 | 1.13 | 79 | 42 | 179.0 | 0.937 | 26.0 | 21.6 | 5.7 | 79.7 | 8.6 | 21-1 | 0.49 |
| 2 SLM | 41 | 1.11 | 80 | 41 | 177.1 | 0.879 | 25.4 | 22.9 | 5.4 | 74.0 | 8.4 | 41-3 | 0.21 |
| GUNNISON | | DELTAPINE NSL | | | | 100 PERCENT | | | | | | | |
| 1 LM LT SP | 52 | 1.11 | 80 | 40 | 168.2 | 0.814 | 26.2 | 21.1 | 7.4 | 71.0 | 9.4 | 42-1 | 0.20 |
| 2 LM LT SP | 52 | 1.14 | 81 | 40 | 167.9 | 0.871 | 23.8 | 21.8 | 7.4 | 69.5 | 8.2 | 41-4 | 0.19 |
| LEARNED | | STONEVILLE 213 | | | | 88 PERCENT | | | | | | | |
| 1 M | 31 | 1.08 | 80 | 45 | 180.7 | 0.915 | 25.0 | 21.7 | 6.1 | 78.0 | 8.5 | 31-1 | 0.35 |
| 2 LM LT SP | 52 | 1.09 | 79 | 40 | 179.1 | 0.860 | 25.4 | 20.5 | 6.0 | 66.8 | 8.8 | 52-1 | 0.17 |

TABLE 6.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | SPY |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **SOUTH CENTRAL** | | | | | | | | | | | | | | |
| **LOUISIANA** | | | | | | | | | | | | | | |
| ST. JOSEPH | | DELTAPINE 41 | | | | 95 PERCENT | | | | | | | | |
| 1 SLM PLUS | 40 | 37 | 1.7 | 2.6 | 5.9 | 110 | 38 | 2160 | 6.8 | 4.8 | 100 | 70 | 121 | 1027 | 63 |
| 2 LM LT SP | 52 | 36 | 1.6 | 2.7 | 6.3 | 104 | 34 | 1994 | 5.9 | 4.4 | 110 | 70 | 121 | 1272 | 59 |
| **MISSISSIPPI** | | | | | | | | | | | | | | |
| ASHLAND | | MCNAIR 235 | | | | 75 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 35 | 2.4 | 3.8 | 7.6 | 93 | 29 | 1748 | 6.2 | 4.2 | 110 | 70 | 97 | 873 | 50 |
| 2 LM LT SP | 52 | 35 | 3.4 | 5.3 | 7.6 | 88 | 29* | 1693 | 6.0 | 5.5 | 100 | 70 | 109 | 751 | 48 |
| ARCOLA | | DELTAPINE 150 | | | | 100 PERCENT | | | | | | | | |
| 1 SM | 21 | 36 | 0.7 | 1.2 | 4.8** | 109 | 35 | 2074 | 6.7 | 5.2 | 120 | 80 | 94 | 489 | 59 |
| 2 LM LT SP | 52 | 35 | 1.3 | 2.9 | 6.5 | 87 | 27 | 1632 | 6.4 | 4.8 | 110 | 70 | 120 | 885 | 52 |
| CARY | | DELTAPINE 55 | | | | 80 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 1.6 | 2.5 | 6.0 | 109 | 32 | 1999 | 6.4 | 4.5 | 100 | 70 | 94 | 959 | 55 |
| 2 LM LT SP | 52 | 37 | 2.6 | 3.9 | 14.8 | 97 | 32 | 1867 | 7.0 | 4.7 | 100 | 70 | 122 | 1125 | 56 |
| GREENVILLE | | STONEVILLE 825 | | | | 100 PERCENT | | | | | | | | |
| 1 SLM | 41 | 37 | 2.4 | 3.6 | 6.8 | 98 | 31 | 1853 | 6.0 | 4.1 | 100 | 70 | 198 | 1216 | 55 |
| 2 LM LT SP | 52 | 36 | 1.6 | 3.2 | 6.8 | 88 | 28* | 1668 | 5.7 | 4.0 | 90 | 60 | 208 | 1124 | 46 |
| GREENWOOD | | STONEVILLE 825 | | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.2 | 2.2 | 6.4 | 103 | 33 | 1958 | 6.1 | 4.9 | 110 | 60 | 212 | 1065 | 53 |
| 2 SLM | 41 | 36 | 1.2 | 2.3 | 6.5 | 98 | 32 | 1878 | 6.4 | 4.4 | 100 | 70 | 158 | 951 | 61 |
| GUNNISON | | DELTAPINE NSL | | | | 100 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 36 | 2.2 | 3.5 | 7.0 | 99 | 32 | 1889 | 6.8 | 5.3 | 100 | 70 | 162 | 870 | 60 |
| 2 LM LT SP | 52 | 35 | 1.9 | 3.5 | 6.0 | 92 | 30 | 1762 | 6.5 | 4.5 | 100 | 60 | 123 | 1185 | 54 |
| LEARNED | | STONEVILLE 213 | | | | 88 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.1 | 2.1 | 7.8 | 93 | 25* | 1648 | 5.5 | 4.2 | 100 | 60 | 189 | 972 | 44 |
| 2 LM LT SP | 52 | 35 | 1.8 | 3.0 | 7.3 | 90 | 29* | 1715 | 5.7 | 4.8 | 100 | 60 | 128 | 715 | 46 |

*END BREAKAGE TOO HIGH TO SPIN 50s YARN. 44s YARN SPUN AND STRENGTH ADJUSTED TO 50s.
**COTTON STUCK TO PROCESSING ROLLS.

TABLE 6.-- CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | FIBER LENGTH | | MICRO-NAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELON-GATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| **SOUTH CENTRAL** | | | | | | | | | | | | | |
| **MISSISSIPPI** | | | | | | | | | | | | | |
| LELAND | | STONEVILLE 506 | | | 100 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 1.13 | 78 | 36 | 161.4 | 0.762 | 25.8 | 21.5 | 6.5 | 66.2 | 8.4 | 51-3 | 0.18 |
| 2 LM LT SP | 52 | 1.13 | 77 | 35 | 156.6 | 0.785 | 26.8 | 21.0 | 6.7 | 67.7 | 8.0 | 51-3 | 0.22 |
| NEW ALBANY | | DELTAPINE 41 | | | 75 PERCENT | | | | | | | | |
| 1 M | 31 | 1.06 | 80 | 38 | 166.1 | 0.887 | 25.8 | 23.2 | 6.2 | 78.0 | 9.0 | 21-4 | 0.37 |
| 2 LM LT SP | 52 | 1.07 | 79 | 33 | 145.3 | 0.714 | 25.4 | 22.5 | 5.8 | 71.0 | 8.5 | 41-4 | 0.22 |
| ROBINSONVILLE | | DELTAPINE 41 | | | 100 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 1.11 | 78 | 38 | 146.6 | 0.795 | 24.0 | 20.3 | 6.1 | 69.0 | 8.6 | 41-4 | 0.31 |
| 2 SLM LT SP | 42 | 1.10 | 78 | 29 | 126.0 | 0.723 | 24.2 | 23.7 | 6.2 | 76.3 | 8.1 | 31-2 | 0.22 |
| TUNICA | | DES 422 | | | 100 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 1.16 | 80 | 38 | 164.9 | 0.817 | 24.2 | 21.3 | 6.4 | 65.5 | 8.4 | 52-2 | 0.20 |
| 2 LM LT SP | 52 | 1.13 | 79 | 38 | 154.6 | 0.822 | 24.6 | 21.1 | 6.2 | 69.0 | 8.4 | 51-3 | 0.18 |
| **MISSOURI** | | | | | | | | | | | | | |
| KENNETT | | STONEVILLE 506 | | | 78 PERCENT | | | | | | | | |
| 1 SLM | 41 | 1.13 | 81 | 45 | 186.2 | 0.906 | 26.8 | 23.7 | 6.2 | 73.0 | 9.4 | 31-4 | 0.22 |
| 2 LM LT SP | 52 | 1.09 | 80 | 45 | 187.3 | 0.908 | 26.0 | 20.7 | 6.6 | 66.2 | 8.8 | 52-1 | 0.14 |
| MATTHEWS | | STONEVILLE 825 | | | 80 PERCENT | | | | | | | | |
| 1 LM | 51 | 1.16 | 81 | 46 | 169.5 | 0.877 | 26.8 | 23.6 | 5.7 | 69.8 | 8.4 | 41-4 | 0.20 |
| 2 LM | 51 | 1.12 | 79 | 41 | 170.1 | 0.889 | 24.6 | 22.7 | 6.2 | 70.8 | 8.0 | 41-4 | 0.15 |
| NEW MADRID | | DELTAPINE 41 | | | 80 PERCENT | | | | | | | | |
| 1 SLM | 41 | 1.12 | 81 | 45 | 188.0 | 0.927 | 27.4 | 24.3 | 5.5 | 74.0 | 8.8 | 31-4 | 0.24 |
| 2 LM LT SP | 52 | 1.09 | 80 | 43 | 177.5 | 0.905 | 26.6 | 23.1 | 6.0 | 65.3 | 8.8 | 52-1 | 0.20 |

TABLE 6.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | SPY |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **SOUTH CENTRAL** | | | | | | | | | | | | | | |
| **MISSISSIPPI** | | | | | | | | | | | | | | |
| LELAND | | STONEVILLE 506 | | | | 100 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 36 | 2.3 | 4.3 | 7.3 | 96 | 30 | 1806 | 6.0 | 4.7 | 90 | 70 | 103 | 1026 | 51 |
| 2 LM LT SP | 52 | 36 | 2.2 | 4.2 | 7.3 | 92 | 29* | 1737 | 5.8 | 5.3 | 100 | 70 | 113 | 794 | 49 |
| NEW ALBANY | | DELTAPINE 41 | | | | 75 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.1 | 2.1 | 5.4 | 105 | 31 | 1930 | 6.0 | 4.3 | 110 | 60 | 239 | 1104 | 52 |
| 2 LM LT SP | 52 | 35 | 2.4 | 4.0 | 7.4 | 89 | 29* | 1704 | 6.3 | 5.3 | 100 | 60 | 160 | 973 | 48 |
| ROBINSONVILLE | | DELTAPINE 41 | | | | 100 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 36 | 1.5 | 3.0 | 6.3 | 95 | 30 | 1795 | 6.0 | 4.7 | 90 | 70 | 139 | 1339 | 55 |
| 2 SLM LT SP | 42 | 36 | 1.2 | 2.0 | 6.3 | 106 | 34 | 2016 | 6.8 | 5.0 | 100 | 60 | 76 | 931 | 57 |
| TUNICA | | DES 422 | | | | 100 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 36 | 3.0 | 4.9 | 8.6 | 94 | 30 | 1784 | 6.3 | 4.6 | 100 | 60 | 159 | 1191 | 54 |
| 2 LM LT SP | 52 | 35 | 2.2 | 3.9 | 8.1 | 92 | 29 | 1737 | 6.2 | 4.7 | 100 | 60 | 469 | 1153 | 51 |
| **MISSOURI** | | | | | | | | | | | | | | |
| KENNETT | | STONEVILLE 506 | | | | 78 PERCENT | | | | | | | | |
| 1 SLM | 41 | 36 | 1.9 | 2.8 | 6.5 | 115 | 38 | 2215 | 6.8 | 5.0 | 120 | 80 | 164 | 647 | 62 |
| 2 LM LT SP | 52 | 36 | 2.1 | 2.9 | 7.0 | 92 | 27 | 1687 | 5.8 | 4.4 | 100 | 80 | 70 | 1009 | 52 |
| MATTHEWS | | STONEVILLE 825 | | | | 80 PERCENT | | | | | | | | |
| 1 LM | 51 | 37 | 2.4 | 3.6 | 7.5 | 107 | 35 | 2052 | 6.2 | 4.5 | 100 | 70 | 143 | 953 | 59 |
| 2 LM | 51 | 36 | 1.7 | 3.3 | 7.0 | 93 | 30 | 1773 | 5.7 | 4.6 | 100 | 60 | 72 | 1144 | 51 |
| NEW MADRID | | DELTAPINE 41 | | | | 80 PERCENT | | | | | | | | |
| 1 SLM | 41 | 36 | 1.8 | 2.7 | 6.2 | 108 | 36 | 2088 | 6.2 | 4.8 | 100 | 70 | 114 | 821 | 64 |
| 2 LM LT SP | 52 | 36 | 2.5 | 3.7 | 7.3 | 98 | 31 | 1853 | 5.8 | 4.4 | 110 | 80 | 86 | 940 | 51 |

*END BREAKAGE TOO HIGH TO SPIN 50s YARN. 44s YARN SPUN AND STRENGTH ADJUSTED TO 50s.

TABLE 6.-- CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | HIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| **SOUTH CENTRAL** | | | | | | | | | | | | | |
| **TENNESSEE** | | | | | | | | | | | | | |
| BELLS | | STONEVILLE 825 | | | | 95 PERCENT | | | | | | | |
| 1 SLM | 41 | 36 | 1.11 | 81 | 46 | 178.6 | 0.943 | 27.2 | 23.9 | 5.6 | 75.3 | 8.6 | 31-4 | 0.23 |
| 2 LM LT SP | 52 | 35 | 1.06 | 81 | 40 | 182.0 | 0.873 | 25.4 | 21.0 | 5.8 | 72.2 | 8.3 | 41-3 | 0.18 |
| ELORA | | STONEVILLE 825 | | | | 95 PERCENT | | | | | | | |
| 1 LM LT SP | 52 | 35 | 1.09 | 79 | 32 | 155.4 | 0.709 | 26.4 | 21.8 | 6.8 | 69.5 | 9.0 | 42-2 | 0.21 |
| 2 SLM LT SP | 42 | 34 | 1.04 | 76 | 27 | 136.2 | 0.663 | 26.0 | 21.0 | 6.5 | 75.3 | 8.6 | 31-4 | 0.18 |
| MASON | | STONEVILLE 506 | | | | 100 PERCENT | | | | | | | |
| 1 SLM LT SP | 42 | 35 | 1.09 | 79 | 42 | 182.3 | 0.856 | 25.6 | 21.8 | 6.1 | 70.5 | 9.0 | 41-4 | 0.19 |
| 2 SLM LT SP | 42 | 35 | 1.10 | 80 | 43 | 184.5 | 0.912 | 25.0 | 22.0 | 6.0 | 70.8 | 8.7 | 41-4 | 0.16 |
| SOMERVILLE | | DELTAPINE NSL | | | | 80 PERCENT | | | | | | | |
| 1 SLM LT SP | 42 | 35 | 1.07 | 80 | 43 | 192.3 | 0.874 | 24.8 | 20.3 | 7.9 | 70.0 | 8.8 | 41-4 | 0.18 |
| 2 SLM LT SP | 42 | 35 | 1.03 | 80 | 42 | 165.4 | 0.855 | 23.2 | 20.9 | 7.0 | 73.0 | 8.4 | 41-3 | 0.16 |
| **SOUTHWEST** | | | | | | | | | | | | | |
| **CENTRAL TEXAS** | | | | | | | | | | | | | |
| BATESVILLE | | DELTAPINE 61 | | | | 90 PERCENT | | | | | | | |
| 1 M | 31 | 34 | 1.14 | 81 | 43 | 167.5 | 0.975 | 25.6 | 26.1 | 6.3 | 80.0 | 8.2 | 21-2 | 0.44 |
| 2 M | 31 | 35 | 1.15 | 81 | 44 | 179.9 | 1.002 | 25.6 | 23.3 | 6.7 | 77.7 | 9.8 | 21-3 | 0.34 |
| NAVASOTA | | STONEVILLE 825 | | | | 100 PERCENT | | | | | | | |
| 1 M | 31 | 34 | 1.07 | 80 | 45 | 178.3 | 0.938 | 23.0 | 23.7 | 5.4 | 78.7 | 8.6 | 21-2 | 0.38 |
| 2 SLM | 41 | 34 | 1.04 | 79 | 39 | 169.6 | 0.915 | 24.2 | 21.0 | 5.9 | 73.0 | 8.5 | 41-3 | 0.24 |

TABLE 6.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **SOUTH CENTRAL** | | | | | | | | | | | | | | |
| **TENNESSEE** | | | | | | | | | | | | | | |
| BELLS | | STONEVILLE 825 | | | | 95 PERCENT | | | | | | | | |
| 1 SLM | 41 | 36 | 2.2 | 3.1 | 6.5 | 106 | 35 | 2041 | 6.0 | 4.8 | 100 | 80 | 143 | 847 | 59 |
| 2 LM LT SP | 52 | 35 | 2.5 | 3.7 | 10.5 | 95 | 30 | 1795 | 5.8 | 4.0 | 110 | 70 | 91 | 474 | 52 |
| ELORA | | STONEVILLE 825 | | | | 95 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 35 | 2.4 | 3.9 | 7.1 | 96 | 30 | 1806 | 6.7 | 4.4 | 90 | 60 | 209 | 1235 | 48 |
| 2 SLM LT SP | 42 | 34 | 1.8 | 3.5 | 6.5 | 95 | 29 | 1770 | 6.8 | 4.5 | 100 | 60 | 120 | 1144 | 50 |
| MASON | | STONEVILLE 506 | | | | 100 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 35 | 1.7 | 3.1 | 6.2 | 90 | 29* | 1715 | 5.9 | 4.4 | 110 | 80 | 102 | 659 | 47 |
| 2 SLM LT SP | 42 | 35 | 1.6 | 3.0 | 6.5 | 93 | 31 | 1798 | 6.3 | 4.2 | 110 | 70 | 16 | 793 | 52 |
| SOMERVILLE | | DELTAPINE NSL | | | | 80 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 35 | 1.3 | 2.8 | 6.2 | 87 | 27* | 1632 | 6.4 | 5.0 | 100 | 70 | 81 | 737 | 42 |
| 2 SLM LT SP | 42 | 35 | 1.0 | 1.9 | 5.8 | 88 | 27 | 1643 | 6.1 | 4.5 | 110 | 70 | 73 | 914 | 45 |
| **SOUTHWEST** | | | | | | | | | | | | | | |
| **CENTRAL TEXAS** | | | | | | | | | | | | | | |
| BATESVILLE | | DELTAPINE 61 | | | | 90 PERCENT | | | | | | | | |
| 1 M | 31 | 34 | 1.5 | 2.2 | 5.6 | 114 | 39 | 2229 | 6.3 | 4.7 | 100 | 70 | 114 | 1007 | 67 |
| 2 M | 31 | 35 | 0.9 | 2.1 | 5.9 | 109 | 36 | 2099 | 6.3 | 4.5 | 110 | 80 | 108 | 872 | 56 |
| NAVASOTA | | STONEVILLE 825 | | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 34 | 1.1 | 1.9 | 5.4 | 89 | 30 | 1729 | 5.5 | 4.0 | 100 | 70 | 151 | 1201 | 49 |
| 2 SLM | 41 | 34 | 1.6 | 2.7 | 6.8 | 96 | 28 | 1756 | 5.5 | 4.0 | 110 | 80 | 110 | 953 | 52 |

*END BREAKAGE TOO HIGH TO SPIN 50s YARN. 44s YARN SPUN AND STRENGTH ADJUSTED TO 50s.

TABL TABLE 6.-- CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | | FIBER LENGTH | | MICRO-NAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELON-GATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | : STAPLE | | HVI UHM | : M/UHM : UNIF. | | FIN. | : MAT. | HVI | STEL. | | Rd | : +b | : COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| SOUTHWEST | | | | | | | | | | | | | | |
| TEXAS | | | | | | | | | | | | | | |
| NORTHWEST TEXAS | | | | | | | | | | | | | | |
| AMHERST | | | DUNN 119 | | | 88 PERCENT | | | | | | | | |
| 1 LM | 51 | 36 | 1.12 | 80 | 29 | 203.4 | 0.547 | 30.2 | 27.4 | 6.3 | 76.0 | 8.4 | 31-2 | 0.37 |
| 2 LM | 51 | 36 | 1.12 | 79 | 29 | 140.9 | 0.673 | 30.0 | 25.9 | 7.1 | 75.7 | 8.2 | 31-2 | 0.32 |
| CEE VEE | | | PAYMASTER 145 | | | 75 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 31 | 0.97 | 79 | 37 | 161.8 | 0.748 | 24.6 | 23.7 | 6.5 | 77.8 | 9.1 | 21-4 | 0.35 |
| 2 LM LT SP | 52 | 32 | 0.98 | 80 | 32 | 147.6 | 0.738 | 27.8 | 26.4 | 6.9 | 74.7 | 9.0 | 31-4 | 0.21 |
| ESTACADO | | | PAYMASTER 404 | | | 100 PERCENT | | | | | | | | |
| 1 LM PLUS | 50 | 33 | 1.01 | 80 | 32 | 146.1 | 0.770 | 24.6 | 23.4 | 6.8 | 76.8 | 8.4 | 31-1 | 0.48 |
| 2 LM LT SP | 52 | 33 | 1.02 | 79 | 29 | 137.2 | 0.717 | 27.0 | 24.3 | 7.0 | 74.7 | 8.8 | 31-4 | 0.29 |
| LAMESA | | | DUNN 120 | | | 100 PERCENT* | | | | | | | | |
| 1 SLM LT SP | 42 | 30 | 0.93 | 78 | 29 | 137.1 | 0.735 | 26.0 | 22.9 | 6.5 | 77.3 | 9.0 | 21-4 | 0.24 |
| LORENZO | | | PAYMASTER 303 | | | 75 PERCENT | | | | | | | | |
| 1 LM LT SP | 52** | 33 | 1.00 | 77 | 30 | 155.8 | 0.651 | 25.0 | 21.3 | 7.1 | 75.5 | 9.1 | 31-3 | 0.37 |
| 2 LM LT SP | 52** | 32 | 0.98 | 77 | 27 | 135.8 | 0.605 | 26.6 | 22.9 | 6.8 | 73.0 | 9.8 | 32-2 | 0.28 |
| PLAINS | | | CASCOT L-7 | | | 70 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 31 | 0.92 | 76 | 25 | 123.9 | 0.652 | 23.6 | 20.9 | 6.8 | 77.3 | 9.1 | 21-4 | 0.33 |
| 2 LM LT SP | 52** | 31 | 0.94 | 76 | 25 | 124.9 | 0.684 | 24.6 | 21.6 | 7.8 | 78.0 | 8.8 | 21-2 | 0.31 |
| OKLAHOMA | | | | | | | | | | | | | | |
| CLINTON | | | TAMCOT CAMD-E | | | 85 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 31 | 0.94 | 78 | 35 | 150.1 | 0.834 | 23.6 | 21.6 | 5.2 | 73.5 | 10.0 | 31-1 | 0.43 |
| 2 LM SP | 53*** | 33 | 1.02 | 78 | 27 | 144.5 | 0.678 | 26.0 | 22.3 | 6.3 | 69.0 | 11.0 | 33-2 | 0.48 |

*100 PERCENT SELECTED FOR TESTS, LESS THAN 100 PERCENT IN THE AREA.
**REDUCED FROM 42 BECAUSE OF BARK.
***REDUCED FROM 43 BECAUSE OF BARK.

TABLE 6.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **SOUTHWEST** | | | | | | | | | | | | | | |
| **NORTHWEST TEXAS** | | | | | | | | | | | | | | |
| AMHERST | | DUNN 119 | | | | 88 PERCENT | | | | | | | | |
| 1 LM | 51 | 4.2 | 6.0 | 8.5 | 118 | 42 | 2348 | 6.8 | 5.5 | 100 | 80 | 135 | 828 | 69 |
| 2 LM | 51 | 4.1 | 5.4 | 8.6 | 120 | 43 | 2395 | 6.7 | 6.0 | 100 | 70 | 110 | 630 | 68 |
| CEE VEE | | PAYMASTER 145 | | | | 75 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 2.2 | 3.8 | 6.8 | 104 | 34 | 1994 | 6.4 | 4.7 | 100 | 70 | 119 | 730 | 51 |
| 2 LM LT SP | 52 | 3.2 | 5.5 | 8.0 | 109 | 37 | 2124 | 6.3 | 4.9 | 100 | 70 | 154 | 783 | 58 |
| ESTACADO | | PAYMASTER 404 | | | | 100 PERCENT | | | | | | | | |
| 1 LM PLUS | 50 | 3.2 | 4.7 | 7.5 | 105 | 34 | 2005 | 6.9 | 5.0 | 100 | 60 | 109 | 833 | 50 |
| 2 LM LT SP | 52 | 3.4 | 5.0 | 8.4 | 100 | 32 | 1900 | 6.7 | 4.6 | 100 | 60 | 169 | 936 | 55 |
| LAMESA | | DUNN 120 | | | | 100 PERCENT* | | | | | | | | |
| 1 SLM LT SP | 42 | 1.2 | 3.1 | 6.3 | 103 | 33 | 1958 | 6.8 | 5.0 | 100 | 70 | 70 | 526 | 52 |
| LORENZO | | PAYMASTER 303 | | | | 75 PERCENT | | | | | | | | |
| 1 LM LT SP | 52** | 2.4 | 4.3 | 7.7 | 89 | 28 | 1679 | 6.8 | 5.0 | 100 | 60 | 83 | 757 | 51 |
| 2 LM LT SP | 52** | 3.2 | 5.8 | 8.2 | 96 | 29 | 1781 | 6.8 | 4.8 | 100 | 70 | 105 | 840 | 48 |
| PLAINS | | CASCOT L-7 | | | | 70 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 2.0 | 4.0 | 8.0 | 92 | 28*** | 1712 | 6.1 | 5.0 | 90 | 60 | 143 | 893 | 42 |
| 2 LM LT SP | 52** | 2.0 | 4.4 | 8.0 | 90 | 27 | 1665 | 6.8 | 5.5 | 90 | 60 | 80 | 738 | 41 |
| **OKLAHOMA** | | | | | | | | | | | | | | |
| CLINTON | | TAMCOT CAMD-E | | | | 85 PERCENT | | | | | | | | |
| 1 LM LT SP | 52 | 4.2 | 5.5 | 9.2 | 94 | 29 | 1759 | 5.7 | 4.4 | 100 | 70 | 82 | 730 | 49 |
| 2 LM SP | 53# | 3.1 | 4.9 | 8.8 | 97 | 31*** | 1842 | 6.2 | 5.1 | 100 | 70 | 117 | 667 | 48 |

*100 PERCENT SELECTED FOR TESTS, LESS THAN 100 PERCENT IN THE AREA.
**REDUCED FROM 42 BECAUSE OF BARK.
***END BREAKAGE TOO HIGH TO SPIN 50s YARN. 44s YARN SPUN AND STRENGTH ADJUSTED TO 50s.
#REDUCED FROM 43 BECAUSE OF BARK.

TABLE 6.-- CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | | FIBER LENGTH | | MICRO-NAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELON-GATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| SOUTHWEST | | | | | | | | | | | | | | |
| OKLAHOMA | | | | | | | | | | | | | | |
| ELDORADO | | | STONEVILLE 213 | | | 80 PERCENT | | | | | | | | |
| 1 SLM | 41* | 34 | 1.06 | 80 | 40 | 168.5 | 0.869 | 26.2 | 23.2 | 5.8 | 77.0 | 8.8 | 31-3 | 0.46 |
| 2 SLM | 41 | 34 | 1.04 | 79 | 40 | 167.0 | 0.869 | 24.6 | 21.3 | 6.2 | 74.8 | 8.6 | 31-4 | 0.34 |
| SWEETWATER | | | LANKART PR-75 | | | 70 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 30 | 0.93 | 79 | 32 | 150.8 | 0.821 | 23.0 | 21.9 | 6.6 | 76.5 | 9.2 | 31-3 | 0.30 |
| 2 LM LT SP | 52 | 31 | 0.95 | 79 | 33 | 145.2 | 0.764 | 24.2 | 21.0 | 5.5 | 73.0 | 8.3 | 41-3 | 0.29 |
| SOUTH TEXAS | | | | | | | | | | | | | | |
| EDROY | | | GP 3774 | | | 80 PERCENT | | | | | | | | |
| 1 M | 31 | 32 | 1.01 | 79 | 34 | 153.9 | 0.859 | 23.2 | 22.1 | 6.6 | 80.0 | 9.4 | 11-4 | 0.48 |
| 2 M | 31 | 32 | 1.01 | 79 | 36 | 157.2 | 0.865 | 22.0 | 21.5 | 6.1 | 79.3 | 9.0 | 21-1 | 0.53 |
| GREGORY | | | TAMCOT SP-37 | | | 75 PERCENT | | | | | | | | |
| 1 SLM PLUS | 40 | 32 | 1.01 | 80 | 36 | 158.2 | 0.901 | 24.2 | 24.2 | 6.2 | 78.7 | 8.9 | 21-2 | 0.55 |
| 2 SLM | 41 | 32 | 1.02 | 79 | 34 | 154.1 | 0.843 | 23.0 | 22.6 | 6.2 | 78.5 | 8.0 | 31-1 | 0.49 |
| MISSION | | | STONEVILLE 825 | | | 100 PERCENT | | | | | | | | |
| 1 LM | 51 | 35 | 1.14 | 81 | 44 | 184.5 | 0.931 | 25.0 | 22.3 | 6.5 | 73.0 | 8.1 | 41-3 | 0.26 |
| 2 LM PLUS | 50 | 35 | 1.13 | 81 | 41 | 176.2 | 0.876 | 24.6 | 23.3 | 5.7 | 78.0 | 7.9 | 31-1 | 0.38 |
| ODEM | | | TAMCOT SP-37H | | | 85 PERCENT | | | | | | | | |
| 1 M | 31 | 32 | 1.01 | 78 | 34 | 149.2 | 0.880 | 24.6 | 22.0 | 5.7 | 79.5 | 9.1 | 21-1 | 0.33 |
| 2 M | 31 | 33 | 1.03 | 79 | 34 | 149.0 | 0.871 | 22.8 | 22.8 | 6.4 | 80.0 | 8.8 | 21-1 | 0.47 |
| RAYMONDVILLE | | | DELTAPINE 41 | | | 90 PERCENT | | | | | | | | |
| 1 M | 31 | 33 | 0.99 | 80 | 37 | 159.6 | 0.896 | 23.0 | 20.9 | 5.9 | 77.0 | 9.3 | 21-4 | 0.37 |
| 2 SLM | 41 | 34 | 1.08 | 81 | 41 | 170.7 | 0.899 | 23.2 | 22.6 | 5.7 | 74.0 | 8.3 | 41-3 | 0.31 |

*AVERAGING RULE USED.

TABLE 6.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **SOUTHWEST** | | | | | | | | | | | | | | |
| **OKLAHOMA** | | | | | | | | | | | | | | |
| ELDORADO | | STONEVILLE 213 | | | | 80 PERCENT | | | | | | | | |
| 1 SLM | 41* | 3.7 | 5.7 | 8.4 | 97 | 30 | 1817 | 6.6 | 4.8 | 90 | 60 | 234 | 1490 | 49 |
| 2 SLM | 41 | 2.7 | 4.5 | 8.5 | 85 | 25** | 1560 | 5.9 | 4.5 | 100 | 60 | 68 | 1316 | 38 |
| SWEETWATER | | LANKART PR-75 | | | | 70 PERCENT | | | | | | | | |
| 1 SLM LT SP | 42 | 2.7 | 4.0 | 7.6 | 95 | 30 | 1795 | 6.5 | 4.8 | 110 | 70 | 51 | 710 | 44 |
| 2 LM LT SP | 52 | 3.9 | 5.3 | 8.7 | 95 | 29** | 1770 | 5.8 | 4.6 | 100 | 70 | 118 | 580 | 45 |
| **SOUTH TEXAS** | | | | | | | | | | | | | | |
| EDROY | | GP 3774 | | | | 80 PERCENT | | | | | | | | |
| 1 M | 31 | 1.8 | 2.7 | 7.0 | 87 | 21 | 1482 | 5.9 | 3.8 | 110 | 60 | 79 | 582 | 48 |
| 2 M | 31 | 1.4 | 2.7 | 6.8 | 91 | 28 | 1701 | 5.8 | 3.9 | 110 | 80 | 67 | 621 | 47 |
| GREGORY | | TAMCOT SP-37 | | | | 75 PERCENT | | | | | | | | |
| 1 SLM PLUS | 40 | 2.1 | 3.2 | 7.8 | 91 | 23 | 1576 | 5.3 | 3.7 | 100 | 60 | 162 | 762 | 48 |
| 2 SLM | 41 | 2.4 | 3.7 | 8.1 | 99 | 31 | 1864 | 6.4 | 4.3 | 100 | 70 | 128 | 756 | 53 |
| MISSION | | STONEVILLE 825 | | | | 100 PERCENT | | | | | | | | |
| 1 LM | 51 | 2.6 | 3.7 | 7.1 | 97 | 32 | 1867 | 5.7 | 4.0 | 120 | 90 | 80 | 652 | 54 |
| 2 LM PLUS | 50 | 2.9 | 4.1 | 7.9 | 107 | 36 | 2077 | 5.8 | 4.4 | 100 | 70 | 104 | 870 | 63 |
| ODEM | | TAMCOT SP-37H | | | | 85 PERCENT | | | | | | | | |
| 1 M | 31 | 1.0 | 2.2 | 6.2 | 86 | 24 | 1546 | 5.3 | 3.8 | 110 | 70 | 63 | 657 | 46 |
| 2 M | 31 | 1.2 | 2.6 | 6.0 | 101 | 31 | 1886 | 6.1 | 4.2 | 120 | 90 | 56 | 558 | 55 |
| RAYMONDVILLE | | DELTAPINE 41 | | | | 90 PERCENT | | | | | | | | |
| 1 M | 31 | 1.1 | 2.1 | 6.0 | 91 | 24 | 1601 | 5.5 | 5.3 | 120 | 70 | 75 | 129 | 50 |
| 2 SLM | 41 | 1.4 | 2.6 | 6.5 | 105 | 35 | 2030 | 6.0 | 4.4 | 120 | 90 | 99 | 533 | 56 |

*AVERAGING RULE USED.
**END BREAKAGE TOO HIGH TO SPIN 50s YARN. 44s YARN SPUN AND STRENGTH ADJUSTED TO 50s.

TABLE 6.-- CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | | FIBER LENGTH | | MICRO-NAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELON-GATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| WEST | | | | | | | | | | | | | | |
| ARIZONA | | | | | | | | | | | | | | |
| AGUILA | | DELTAPINE 90 | | | | 90 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 1.15 | 80 | 43 | 173.7 | 0.935 | 28.6 | 24.2 | 6.2 | 79.0 | 8.7 | 21-2 | 0.33 |
| 2 M | 31 | 36 | 1.17 | 81 | 42 | 171.3 | 0.931 | 28.4 | 25.1 | 6.3 | 81.0 | 8.9 | 11-2 | 0.26 |
| AVONDALE | | DELTAPINE 61 | | | | 85 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 1.15 | 80 | 49 | 192.4 | 1.004 | 27.4 | 23.6 | 5.6 | 80.0 | 8.6 | 21-1 | 0.31 |
| 2 M | 31 | 36 | 1.15 | 79 | 47 | 188.6 | 0.963 | 26.4 | 22.9 | 5.6 | 81.7 | 8.0 | 21-1 | 0.30 |
| BUCKEYE | | DELTAPINE 90 | | | | 86 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.09 | 80 | 49 | 186.6 | 1.020 | 29.4 | 24.2 | 5.9 | 79.0 | 9.0 | 21-1 | 0.25 |
| 2 M | 31 | 36 | 1.13 | 80 | 49 | 188.2 | 0.982 | 28.0 | 25.3 | 5.7 | 80.5 | 8.6 | 21-1 | 0.32 |
| BUCKEYE | | DELTAPINE 120 | | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.05 | 81 | 52 | 197.6 | 1.023 | 25.6 | 24.6 | 6.4 | 78.0 | 8.5 | 31-1 | 0.25 |
| 2 M | 31 | 35 | 1.06 | 81 | 46 | 175.7 | 0.974 | 26.8 | 24.3 | 6.4 | 81.7 | 8.3 | 11-2 | 0.26 |
| ELOY | | DELTAPINE 41 | | | | 90 PERCENT | | | | | | | | |
| 1 SLM | 41 | 36 | 1.15 | 80 | 44 | 173.3 | 0.934 | 26.6 | 23.9 | 6.1 | 78.7 | 8.4 | 21-2 | 0.40 |
| 2 SLM | 41 | 36 | 1.15 | 79 | 42 | 168.7 | 0.907 | 26.0 | 24.2 | 6.1 | 79.0 | 8.4 | 21-2 | 0.32 |
| GILA BEND | | DELTAPINE 70 | | | | 70 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.11 | 81 | 54 | 180.3 | 1.163 | 29.4 | 26.2 | 5.5 | 79.2 | 8.8 | 21-1 | 0.21 |
| 2 SLM | 41 | 36 | 1.12 | 81 | 50 | 191.8 | 0.998 | 28.6 | 25.1 | 5.2 | 80.0 | 9.1 | 11-2 | 0.30 |
| GILA BEND | | STONEVILLE 506 | | | | 91 PERCENT | | | | | | | | |
| 1 SLM | 41 | 36 | 1.12 | 81 | 47 | 178.0 | 1.015 | 26.6 | 24.7 | 5.7 | 78.2 | 9.2 | 21-3 | 0.31 |
| 2 SLM | 41 | 36 | 1.12 | 81 | 49 | 170.0 | 1.100 | 28.0 | 24.1 | 5.8 | 77.8 | 9.0 | 21-4 | 0.26 |
| SAFFORD | | DELTAPINE 90 | | | | 96 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 1.12 | 79 | 42 | 173.3 | 0.910 | 28.2 | 24.3 | 6.6 | 78.7 | 8.7 | 21-2 | 0.30 |
| 2 M | 31 | 36 | 1.08 | 79 | 34 | 152.4 | 0.809 | 27.8 | 23.8 | 6.3 | 82.3 | 8.2 | 11-2 | 0.56 |
| CALIFORNIA | | | | | | | | | | | | | | |
| BAKERSFIELD | | ACALA SJ-2 | | | | 100 PERCENT | | | | | | | | |
| 1 SM | 21 | 36 | 1.14 | 81 | 42 | 169.1 | 0.949 | 29.6 | 27.0 | 5.7 | 79.0 | 9.2 | 21-3 | 0.33 |
| 2 M | 31 | 36 | 1.13 | 81 | 43 | 171.2 | 0.936 | 30.4 | 27.0 | 5.6 | 79.3 | 9.0 | 21-1 | 0.37 |

TABLE 6.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s INDEX | 50s INDEX | 22s NO. | 50s NO. | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| WEST | | | | | | | | | | | | | | |
| ARIZONA | | | | | | | | | | | | | | |
| AGUILA | | DELTAPINE 90 | | | | 90 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 0.9 | 2.0 | 5.3 | 115 | 37 | 2190 | 6.2 | 4.8 | 110 | 80 | 85 | 943 | 59 |
| 2 M | 31 | 36 | 0.8 | 2.1 | 5.1 | 116 | 40 | 2276 | 6.0 | 5.0 | 120 | 70 | 92 | 726 | 67 |
| AVONDALE | | DELTAPINE 61 | | | | 85 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 1.2 | 2.7 | 6.0 | 101 | 30 | 1861 | 6.0 | 4.4 | 100 | 70 | 206 | 1619 | 50 |
| 2 M | 31 | 36 | 1.0 | 2.1 | 6.3 | 93 | 30 | 1773 | 5.8 | 4.8 | 90 | 60 | 197 | 1403 | 49 |
| BUCKEYE | | DELTAPINE 90 | | | | 86 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 0.9 | 1.3 | 5.6 | 116 | 38 | 2226 | 5.9 | 4.4 | 120 | 70 | 106 | 784 | 60 |
| 2 M | 31 | 36 | 0.9 | 2.3 | 5.6 | 114 | 38 | 2204 | 6.0 | 5.0 | 110 | 70 | 236 | 695 | 55 |
| BUCKEYE | | DELTAPINE 120 | | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.0 | 1.8 | 6.2 | 103 | 31 | 1908 | 5.4 | 4.3 | 100 | 60 | 160 | 966 | 46 |
| 2 M | 31 | 35 | 0.8 | 1.9 | 6.2 | 102 | 33 | 1947 | 6.2 | 5.2 | 100 | 70 | 117 | 1106 | 52 |
| ELOY | | DELTAPINE 41 | | | | 90 PERCENT | | | | | | | | |
| 1 SLM | 41 | 36 | 2.0 | 3.0 | 7.0 | 106 | 35 | 2041 | 6.1 | 4.8 | 100 | 60 | 186 | 1411 | 54 |
| 2 SLM | 41 | 36 | 1.6 | 2.7 | 6.2 | 107 | 36 | 2077 | 6.5 | 5.2 | 100 | 80 | 129 | 1076 | 60 |
| GILA BEND | | DELTAPINE 70 | | | | 70 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.3 | 2.0 | 5.9 | 111 | 34 | 2071 | 5.5 | 3.9 | 110 | 70 | 105 | 1020 | 52 |
| 2 SLM | 41 | 36 | 1.4 | 2.8 | 5.7 | 113 | 39 | 2218 | 5.5 | 4.4 | 120 | 80 | 127 | 891 | 58 |
| GILA BEND | | STONEVILLE 506 | | | | 91 PERCENT | | | | | | | | |
| 1 SLM | 41 | 36 | 2.1 | 3.4 | 5.7 | 114 | 40 | 2254 | 6.1 | 4.8 | 110 | 80 | 114 | 573 | 68 |
| 2 SLM | 41 | 36 | 1.8 | 3.1 | 7.2 | 103 | 32 | 1933 | 5.5 | 4.1 | 120 | 70 | 110 | 962 | 53 |
| SAFFORD | | DELTAPINE 90 | | | | 96 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 0.8 | 2.3 | 6.7 | 110 | 36 | 2110 | 6.5 | 4.8 | 110 | 70 | 87 | 1007 | 55 |
| 2 M | 31 | 36 | 1.0 | 2.4 | 6.0 | 96 | 30 | 1806 | 6.4 | 5.0 | 100 | 60 | 136 | 877 | 49 |
| CALIFORNIA | | | | | | | | | | | | | | | |
| BAKERSFIELD | | ACALA SJ-2 | | | | 100 PERCENT | | | | | | | | |
| 1 SM | 21 | 36 | 0.8 | 1.5 | 5.7 | 133 | 45 | 2588 | 6.7 | 5.2 | 100 | 80 | 132 | 690 | 77 |
| 2 M | 31 | 36 | 0.8 | 1.9 | 5.3 | 128 | 45 | 2533 | 6.2 | 4.8 | 110 | 70 | 148 | 730 | 76 |

TABLE 6.-- CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| WEST | | | | | | | | | | | | | |
| CALIFORNIA | | | | | | | | | | | | | |
| BLYTHE | | DELTAPINE 90 | | | 95 PERCENT | | | | | | | | |
| 1 M | 31 | 1.19 | 82 | 47 | 177.8 | 0.984 | 29.4 | 27.6 | 5.5 | 78.7 | 9.2 | 21-3 | 0.34 |
| 2 M | 31 | 1.12 | 81 | 44 | 186.0 | 1.032 | 29.4 | 27.2 | 5.0 | 78.2 | 9.0 | 21-3 | 0.23 |
| BRAWLEY | | DELTAPINE 61 | | | 98 PERCENT | | | | | | | | |
| 1 M | 31 | 1.12 | 80 | 44 | 178.5 | 0.998 | 25.0 | 24.5 | 5.4 | 79.0 | 8.3 | 21-2 | 0.24 |
| 2 M | 31 | 1.12 | 80 | 48 | 185.5 | 0.994 | 25.8 | 23.6 | 6.1 | 79.0 | 8.1 | 31-1 | 0.20 |
| COALINGA | | ACALA SJ-2 | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 1.09 | 80 | 43 | 169.5 | 0.952 | 29.4 | 26.8 | 6.2 | 79.5 | 9.5 | 11-4 | 0.37 |
| 2 M | 31 | 1.13 | 79 | 36 | 156.2 | 0.856 | 30.4 | 25.0 | 5.9 | 80.0 | 9.0 | 11-2 | 0.33 |
| CORCORAN | | ACALA SJ-2 | | | 100 PERCENT | | | | | | | | |
| 1 SM | 21 | 1.13 | 81 | 45 | 171.7 | 0.951 | 30.2 | 27.1 | 5.4 | 79.5 | 9.0 | 21-1 | 0.30 |
| 2 M | 31 | 1.13 | 80 | 44 | 166.0 | 0.980 | 29.6 | 26.9 | 5.8 | 78.5 | 9.0 | 21-2 | 0.43 |
| DOS PALOS | | ACALA SJC-1 | | | 100 PERCENT* | | | | | | | | |
| 1 M | 31 | 1.14 | 82 | 40 | 149.8 | 0.957 | 31.6 | 29.0 | 5.7 | 79.7 | 8.6 | 21-1 | 0.37 |
| 2 M | 31 | 1.16 | 82 | 41 | 158.1 | 0.996 | 30.8 | 27.5 | 6.1 | 79.5 | 8.5 | 21-1 | 0.34 |
| FIREBAUGH | | ACALA SJC-1 | | | 100 PERCENT* | | | | | | | | |
| 1 M | 31 | 1.13 | 81 | 35 | 138.2 | 0.884 | 30.4 | 27.2 | 6.2 | 80.3 | 8.5 | 21-1 | 0.36 |
| 2 M | 31 | 1.19 | 82 | 41 | 157.5 | 0.966 | 31.2 | 28.3 | 6.3 | 81.0 | 8.6 | 11-2 | 0.37 |
| FIVE POINTS | | ACALA SJ-2 | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 1.19 | 81 | 38 | 159.7 | 0.857 | 29.6 | 27.6 | 6.2 | 79.2 | 8.8 | 21-2 | 0.36 |
| 2 M | 31 | 1.17 | 81 | 40 | 169.8 | 0.921 | 29.4 | 25.9 | 6.2 | 79.7 | 8.8 | 21-1 | 0.38 |
| KERMAN | | ACALA SJ-2 | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 1.16 | 82 | 41 | 170.1 | 0.832 | 29.4 | 26.6 | 6.4 | 79.0 | 9.2 | 21-3 | 0.37 |
| 2 M | 31 | 1.14 | 81 | 39 | 159.4 | 0.875 | 26.8 | 26.1 | 6.1 | 79.2 | 8.8 | 21-1 | 0.40 |
| RIVERDALE | | ACALA SJ-2 | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 1.15 | 81 | 37 | 156.0 | 0.841 | 31.0 | 27.7 | 5.7 | 78.5 | 8.8 | 21-2 | 0.34 |
| 2 M | 31 | 1.15 | 80 | 42 | 167.4 | 0.938 | 30.2 | 27.3 | 6.1 | 79.0 | 9.2 | 21-3 | 0.37 |

*100 PERCENT SELECTED FOR TESTS, LESS THAN 100 PERCENT IN THE AREA.

TABLE 6.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | SPY |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| **WEST** | | | | | | | | | | | | | | |
| **CALIFORNIA** | | | | | | | | | | | | | | |
| BLYTHE | | DELTAPINE 90 | | | | 95 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 1.1 | 2.1 | 5.7 | 125 | 43 | 2450 | 6.2 | 4.5 | 110 | 90 | 121 | 897 | 75 |
| 2 M | 31 | 36 | 0.9 | 1.7 | 6.4 | 117 | 39 | 2262 | 5.4 | 4.2 | 100 | 70 | 116 | 842 | 62 |
| BRAWLEY | | DELTAPINE 61 | | | | 98 PERCENT | | | | | | | | |
| 1 M | 31 | 35 | 1.2 | 2.3 | 6.6 | 98 | 30 | 1828 | 5.1 | 3.7 | 100 | 60 | 356 | 1908 | 48 |
| 2 M | 31 | 35 | 1.0 | 2.4 | 6.2 | 97 | 31 | 1842 | 5.0 | 3.7 | 100 | 70 | 218 | 1573 | 52 |
| COALINGA | | ACALA SJ-2 | | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 1.4 | 2.6 | 6.2 | 114 | 39 | 2229 | 5.7 | 4.4 | 110 | 70 | 251 | 1033 | 58 |
| 2 M | 31 | 36 | 1.0 | 1.3 | 5.5 | 120 | 42 | 2370 | 6.4 | 4.8 | 90 | 70 | 192 | 961 | 64 |
| CORCORAN | | ACALA SJ-2 | | | | 100 PERCENT | | | | | | | | |
| 1 SM | 21 | 36 | 0.9 | 1.6 | 5.9 | 120 | 43 | 2395 | 6.0 | 4.8 | 100 | 80 | 225 | 947 | 66 |
| 2 M | 31 | 37 | 1.1 | 2.0 | 5.6 | 127 | 47 | 2572 | 6.3 | 5.4 | 100 | 70 | 261 | 693 | 72 |
| DOS PALOS | | ACALA SJC-1 | | | | 100 PERCENT* | | | | | | | | |
| 1 M | 31 | 36 | 1.2 | 4.5 | 6.0 | 143 | 52 | 2873 | 6.2 | 4.8 | 100 | 80 | 294 | 679 | 93 |
| 2 M | 31 | 36 | 1.2 | 2.0 | 5.5 | 134 | 50 | 2724 | 6.4 | 4.7 | 100 | 70 | 107 | 571 | 83 |
| FIREBAUGH | | ACALA SJC-1 | | | | 100 PERCENT* | | | | | | | | |
| 1 M | 31 | 36 | 1.5 | 2.8 | 5.7 | 138 | 50 | 2768 | 7.1 | 5.4 | 90 | 70 | 273 | 863 | 88 |
| 2 M | 31 | 36 | 1.3 | 1.9 | 5.4 | 141 | 53 | 2876 | 6.6 | 5.7 | 100 | 70 | 312 | 699 | 91 |
| FIVE POINTS | | ACALA SJ-2 | | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 1.4 | 3.4 | 5.9 | 130 | 46 | 2580 | 6.2 | 5.1 | 90 | 70 | 206 | 1052 | 76 |
| 2 M | 31 | 36 | 1.1 | 1.6 | 5.2 | 124 | 45 | 2489 | 6.8 | 5.4 | 100 | 70 | 155 | 663 | 79 |
| KERMAN | | ACALA SJ-2 | | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 37 | 1.3 | 2.5 | 5.4 | 129 | 47 | 2594 | 6.6 | 4.8 | 100 | 70 | 197 | 804 | 75 |
| 2 M | 31 | 36 | 0.9 | 1.4 | 4.9** | 125 | 45 | 2500 | 6.5 | 5.4 | 110 | 70 | 193 | 708 | 70 |
| RIVERDALE | | ACALA SJ-2 | | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 36 | 1.3 | 2.1 | 6.2 | 124 | 44 | 2464 | 6.7 | 5.0 | 100 | 70 | 263 | 906 | 79 |
| 2 M | 31 | 36 | 1.6 | 2.6 | 5.1 | 125 | 43 | 2450 | 6.7 | 5.0 | 100 | 70 | 190 | 954 | 76 |

*100 PERCENT SELECTED FOR TESTS, LESS THAN 100 PERCENT IN THE AREA.
**COTTON STUCK TO PROCESSING ROLLS.

TABLE 6.-- CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | FIBER LENGTH | | MICRO-NAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELON-GATION | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | COLOR CODE | |
| NO.-NAME-CODE | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| WEST | | | | | | | | | | | | | |
| CALIFORNIA | | | | | | | | | | | | | |
| TULARE | | GC-510 | | | | 100 PERCENT* | | | | | | | |
| 1 M | 31 | 37 1.18 | 83 | 42 | 159.4 | 0.980 | 31.6 | 28.1 | 5.6 | 80.5 | 8.7 | 21-1 | 0.35 |
| 2 M | 31 | 37 1.15 | 83 | 45 | 159.8 | 1.032 | 28.6 | 27.7 | 5.9 | 79.5 | 8.3 | 21-2 | 0.48 |
| VISALIA | | ACALA SJ-5 | | | | 100 PERCENT* | | | | | | | |
| 1 M | 31 | 37 1.14 | 81 | 43 | 165.1 | 0.933 | 30.4 | 26.8 | 5.4 | 77.0 | 8.8 | 31-3 | 0.36 |
| 2 M | 31 | 37 1.15 | 81 | 43 | 156.5 | 0.983 | 28.6 | 26.9 | 5.5 | 78.5 | 8.6 | 21-2 | 0.33 |
| VISALIA | | ACALA SJ-5 | | | | 98 PERCENT | | | | | | | |
| 1 M | 31 | 36 1.13 | 81 | 41 | 151.6 | 0.977 | 28.4 | 27.7 | 5.5 | 78.5 | 9.0 | 21-2 | 0.38 |
| 2 M | 31 | 37 1.15 | 81 | 45 | 160.6 | 0.997 | 29.2 | 27.1 | 5.5 | 79.0 | 8.5 | 21-2 | 0.44 |
| WASCO | | ACALA SJC-1 | | | | 100 PERCENT* | | | | | | | |
| 1 M | 31 | 36 1.13 | 82 | 43 | 158.3 | 0.979 | 30.6 | 27.0 | 6.0 | 78.3 | 9.3 | 21-3 | 0.42 |
| 2 M | 31 | 37 1.13 | 82 | 42 | 159.9 | 0.989 | 30.8 | 28.3 | 5.9 | 80.0 | 9.1 | 11-2 | 0.33 |
| WASCO | | ACALA SJ-2 | | | | 100 PERCENT | | | | | | | |
| 1 M | 31 | 36 1.17 | 81 | 42 | 165.9 | 0.986 | 30.0 | 28.6 | 5.3 | 78.3 | 9.0 | 21-2 | 0.31 |
| 2 SLM | 41 | 36 1.16 | 81 | 41 | 164.6 | 0.922 | 28.4 | 25.4 | 6.1 | 76.3 | 9.0 | 31-3 | 0.37 |

*100 PERCENT SELECTED FOR TESTS, LESS THAN 100 PERCENT IN THE AREA.

TABLE 6.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | YARN PROPERTIES | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | SPY |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| WEST | | | | | | | | | | | | | | |
| CALIFORNIA | | | | | | | | | | | | | | |
| TULARE | | GC-510 | | | | 100 PERCENT* | | | | | | | | |
| 1 M | 31 | 37 1.2 | 2.0 | 5.7 | 137 | 53 | 2832 | 6.6 | 5.3 | 100 | 80 | 363 | 796 | 85 |
| 2 M | 31 | 37 0.7 | 2.8 | 4.6 | 143 | 52 | 2873 | 6.7 | 5.0 | 100 | 70 | 370 | 775 | 80 |
| VISALIA | | ACALA SJ-5 | | | | 100 PERCENT* | | | | | | | | |
| 1 M | 31 | 37 1.1 | 1.9 | 5.9 | 131 | 45 | 2566 | 6.1 | 4.8 | 100 | 80 | 176 | 864 | 70 |
| 2 M | 31 | 37 1.0 | 2.0 | 4.8** | 134 | 48 | 2674 | 6.2 | 5.3 | 100 | 70 | 254 | 726 | 79 |
| VISALIA | | ACALA SJ-5 | | | | 98 PERCENT | | | | | | | | |
| 1 M | 31 | 36 1.3 | 2.5 | 5.4 | 138 | 50 | 2768 | 6.8 | 4.8 | 100 | 80 | 244 | 712 | 83 |
| 2 M | 31 | 37 0.9 | 1.9 | 4.5 | 142 | 52 | 2862 | 6.4 | 4.8 | 100 | 70 | 271 | 643 | 84 |
| WASCO | | ACALA SJC-1 | | | | 100 PERCENT* | | | | | | | | |
| 1 M | 31 | 36 1.1 | 2.2 | 5.3 | 134 | 50 | 2724 | 6.9 | 5.5 | 100 | 70 | 205 | 597 | 81 |
| 2 M | 31 | 37 1.2 | 2.4 | 5.2 | 137 | 50 | 2757 | 6.5 | 5.1 | 90 | 70 | 78 | 502 | 77 |
| WASCO | | ACALA SJ-2 | | | | 100 PERCENT | | | | | | | | |
| 1 M | 31 | 36 0.8 | 1.5 | 5.3 | 140 | 49 | 2765 | 6.7 | 4.9 | 100 | 70 | 168 | 678 | 89 |
| 2 SLM | 41 | 36 1.4 | 2.3 | 5.4 | 124 | 44 | 2464 | 6.2 | 5.0 | 100 | 70 | 130 | 554 | 77 |

*100 PERCENT SELECTED FOR TESTS, LESS THAN 100 PERCENT IN THE AREA.
**COTTON STUCK TO PROCESSING ROLLS.

TABLE 7.--COTTON, AMERICAN UPLAND LONG STAPLE: QUALITY CHARACTERISTICS BY PRODUCTION AREA AND CLASSIFICATION, CROP OF 1984.

| PRODUCTION AREA AND CLASSIFICATION | | FIBER LENGTH | | | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELON- | COLOR OF RAW STOCK | | | SUGAR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | HVI UHM | M/UHM UNIF. | MICRONAIRE | FIN. | MAT. | HVI | STEL. | GATION | Rd | +b | COLOR CODE | CONTENT |
| NO.-NAME-CODE | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| WEST | | | | | | | | | | | | | |
| NEW MEXICO | | | | | | | | | | | | | |
| COLUMBUS | | ACALA 1517-75 | | | | 100 PERCENT | | | | | | | |
| 1 SLM | 41 | 1.18 | 81 | 34 | 136.6 | 0.870 | 28.8 | 27.1 | 6.4 | 76.0 | 7.9 | 31-2 | 0.32 |
| 2 SLM | 41 | 1.16 | 82 | 38 | 142.8 | 0.920 | 25.6 | 26.6 | 6.5 | 79.0 | 7.8 | 31-1 | 0.36 |

TABLE 7.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | SHIRLEY ANALYZER NON-LINT CONTENT | | P&C AND COMBER WASTE | YARN PROPERTIES | | | | | | | | | SPY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | |
| GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| NO.-NAME-CODE | 32ND IN. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. | NO. |
| WEST | | | | | | | | | | | | | | |
| NEW MEXICO | | | | | | | | | | | | | | |
| COLUMBUS | | ACALA 1517-75 | | | | | 100 PERCENT | | | | | | | |
| 1 SLM | 41 | 1.7 | 2.5 | 7.7 | 143 | 48 | 2773 | 6.7 | 5.6 | 100 | 70 | 85 | 573 | 96 |
| | | | | * 18.3 | 152 | 56 | 3072 | 6.7 | 5.8 | 130 | 110 | 20 | 181 | |
| 2 SLM | 41 | 1.3 | 2.3 | 7.3 | 129 | 47 | 2594 | 6.5 | 5.3 | 100 | 70 | 75 | 592 | 92 |
| | | | | * 18.1 | 150 | 55 | 3025 | 6.6 | 5.4 | 130 | 110 | 19 | 147 | |

*COMBED YARN DATA.

TABLE 8.--COTTON, AMERICAN PIMA EXTRA LONG STAPLE: QUALITY CHARACTERISTICS BY PRODUCTION AREA AND CLASSIFACATION, CROP OF 1984.

| PRODUCTION AREA AND CLASSIFICATION | | | FIBROGRAPH | | MICRONAIRE | HIC-SHIRLEY FINENESS/MATURITY | | STELOMETER | | COLOR OF RAW STOCK | | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE | STAPLE | | 2.5% SPAN | 50/2.5 UNIF. | | FIN. | MAT. | 1/8" GAGE FIBER STRENGTH | 1/8" ELONGATION | Rd | +b | COLOR CODE | |
| NO | CODE | 32ND IN. | IN. | PCT. | RDG. | MTEX | RATIO | G/TEX | PCT. | PCT. | UNITS | NO. | PCT. |
| WEST | | | | | | | | | | | | | |
| ARIZONA | | | | | | | | | | | | | |
| | CASA GRANDE | | PIMA S-6 | | | | 100 PERCENT | | | | | | |
| 1 | 4 | 46 | 1.37 | 47 | 42 | 149.1 | 1.003 | 34 | 7.2 | 65.5 | 11.6 | - | 0.21 |
| 2 | 4 | 46 | 1.34 | 49 | 40 | 146.6 | 1.011 | 33 | 6.2 | 68.8 | 11.8 | - | 0.21 |
| | SAFFORD | | PIMA S-6 | | | | 100 PERCENT | | | | | | |
| 1 | 4 | 46 | 1.34 | 47 | 44 | 161.1 | 1.009 | 34 | 7.7 | 64.5 | 12.8 | - | 0.28 |
| 2 | 4 | 46 | 1.30 | 48 | 40 | 163.0 | 1.002 | 35 | 7.0 | 66.5 | 12.3 | - | 0.19 |
| | WENDEN | | PIMA S-6 | | | | 100 PERCENT | | | | | | |
| 1 | 4 | 46 | 1.31 | 47 | 39 | 142.0 | 0.951 | 36 | 7.1 | 66.5 | 12.2 | - | 0.24 |
| 2 | 4 | 46 | 1.33 | 48 | 39 | 150.1 | 0.977 | 37 | 7.5 | 69.0 | 11.8 | - | 0.25 |
| NEW MEXICO | | | | | | | | | | | | | |
| | MESQUITE | | PIMA S-6 | | | | 100 PERCENT | | | | | | |
| 1 | 4 | 46 | 1.30 | 47 | 40 | 156.5 | 0.942 | 33 | 7.6 | 65.3 | 12.0 | - | 0.24 |
| 2 | 5 | 46 | 1.30 | 47 | 40 | 152.4 | 0.922 | 34 | 7.4 | 66.5 | 11.6 | - | 0.19 |
| WEST TEXAS | | | | | | | | | | | | | |
| | EL PASO | | PIMA S-6 | | | | 99 PERCENT | | | | | | |
| 1 | 4 | 46 | 1.33 | 47 | 42 | 153.6 | 0.991 | 32 | 7.4 | 65.0 | 12.2 | - | 0.26 |
| 2 | 5 | 46 | 1.28 | 45 | 40 | 151.3 | 0.947 | 32 | 6.5 | 65.0 | 12.0 | - | 0.20 |
| | FABENS | | PIMA S-6 | | | | 100 PERCENT | | | | | | |
| 1 | 4 | 46 | 1.30 | 46 | 41 | 155.9 | 0.935 | 35 | 7.8 | 62.7 | 11.5 | - | 0.19 |
| 2 | 5 | 46 | 1.29 | 47 | 39 | 156.9 | 0.969 | 33 | 7.7 | 65.2 | 11.6 | - | 0.20 |

TABLE 8.--CONTINUED

| PRODUCTION AREA AND CLASSIFICATION | | | SHIRLEY ANALYZER NON-LINT CONTENT | | PICKER & CARD WASTE | COMBER WASTE | YARN PROPERTIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | |
| | GRADE | STAPLE | VISIBLE WASTE | TOTAL WASTE | | | 50s | 80s | BR. FACTOR | 50s | 80s | 50s | 80s | 50s | 80s |
| NO. | CODE | 32ND IN. | PCT. | PCT. | PCT. | PCT. | LBS. | LBS. | AVG. NO. | PCT. | PCT. | INDEX | INDEX | NO. | NO. |
| WEST | | | | | | | | | | | | | | | |
| | ARIZONA | | | | | | | | | | | | | | |
| | CASA GRANDE | | PIMA S-6 | | | | | | 100 PERCENT | | | | | | |
| 1 | 4 | 46 | 2.4 | 3.9 | 8.1 | 16.1 | 70 | 38 | 3270 | 5.7 | 4.8 | 120 | 110 | 93 | 389 |
| 2 | 4 | 46 | 1.5 | 2.9 | 7.3 | 15.0 | 71 | 38 | 3295 | 5.8 | 5.0 | 120 | 110 | 105 | 352 |
| | SAFFORD | | PIMA S-6 | | | | | | 100 PERCENT | | | | | | |
| 1 | 4 | 46 | 1.5 | 2.6 | 6.5 | 15.2 | 65 | 35 | 3025 | 5.3 | 4.8 | 130 | 120 | 53 | 368 |
| 2 | 4 | 46 | 3.2 | 5.1 | 6.9 | 15.3 | 67 | 36 | 3115 | 6.0 | 5.2 | 120 | 110 | 65 | 257 |
| | WENDEN | | PIMA S-6 | | | | | | 100 PERCENT | | | | | | |
| 1 | 4 | 46 | 1.9 | 2.9 | 5.9 | 16.2 | 70 | 38 | 3270 | 6.0 | 5.3 | 120 | 110 | 112 | 129 |
| 2 | 4 | 46 | 1.6 | 2.4 | 7.0 | 16.1 | 71 | 38 | 3295 | 5.5 | 5.0 | 120 | 110 | 100 | 337 |
| | NEW MEXICO | | | | | | | | | | | | | | |
| | MESQUITE | | PIMA S-6 | | | | | | 100 PERCENT | | | | | | |
| 1 | 4 | 46 | 1.8 | 3.0 | 6.9 | 15.1 | 65 | 34 | 2985 | 5.7 | 5.3 | 120 | 110 | 40 | 393 |
| 2 | 5 | 46 | 1.6 | 3.0 | 7.7 | 15.6 | 67 | 35 | 3075 | 5.9 | 5.0 | 130 | 120 | 74 | 273 |
| | WEST TEXAS | | | | | | | | | | | | | | |
| | EL PASO | | PIMA S-6 | | | | | | 99 PERCENT | | | | | | |
| 1 | 4 | 46 | 1.2 | 2.7 | 7.2 | 15.0 | 68 | 36 | 3140 | 5.5 | 4.8 | 130 | 120 | 114 | 391 |
| 2 | 5 | 46 | 1.4 | 3.0 | 10.5 | 16.0 | 65 | 33 | 2945 | 5.5 | 4.9 | 110 | 110 | 101 | 313 |
| | FABENS | | PIMA S-6 | | | | | | 100 PERCENT | | | | | | |
| 1 | 4 | 46 | 1.2 | 2.7 | 6.8 | 14.3 | 64 | 34 | 2960 | 6.0 | 5.4 | 120 | 110 | 114 | 322 |
| 2 | 5 | 46 | 1.9 | 3.4 | 7.7 | 15.6 | 65 | 35 | 3025 | 5.7 | 5.0 | 120 | 110 | 83 | 299 |

TABLE 9.--COTTON: MEANS AND STANDARD DEVIATIONS OF TEST MEASUREMENTS PERFORMED ON 210 SAMPLES COLLECTED FROM SELECTED GIN POINTS, CROP OF 1984.

| TEST ITEM | 35 SHORT STAPLE SAMPLES | | 161 MEDIUM STAPLE SAMPLES | | 2 LONG STAPLE SAMPLES | | 12 EXTRA LONG STAPLE SAMPLES | |
|---|---|---|---|---|---|---|---|---|
| | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION |
| FIBER PROPERTIES: | | | | | | | | |
| CLASSIFICATION: | | | | | | | | |
| GRADE ---------- INDEX | 86.0 | 8.7 | 91.6 | 8.4 | 94.0 | 0.0 | - | - |
| STAPLE ---------- 32ND IN. | 31.3 | 1.2 | 35.2 | 1.5 | 37.5 | 0.7 | 46.0 | 0.0 |
| FIBER LENGTH: | | | | | | | | |
| UPPER HALF MEAN -------- IN. | 0.962 | 0.041 | 1.102 | 0.058 | 1.170 | 0.014 | - | - |
| MEAN/UHM UNIF. -------- PCT. | 78.5 | 1.1 | 79.9 | 1.3 | 81.5 | 0.7 | - | - |
| 2.5% SPAN ---------- IN. | - | - | - | - | - | - | 1.316 | 0.026 |
| 50/2.5 UNIF. ---------- PCT. | - | - | - | - | - | - | 47.1 | 1.0 |
| MICRONAIRE ---------- RDG. | 33.5 | 6.1 | 40.4 | 5.5 | 36.0 | 2.8 | 40.5 | 1.5 |
| IIC-SHIRLEY FINENESS/MATURITY: | | | | | | | | |
| FINENESS ---------- MTEX | 153.07 | 19.24 | 167.74 | 15.05 | 139.70 | 4.38 | 153.21 | 5.96 |
| MATURITY ---------- RATIO | 0.765 | 0.100 | 0.884 | 0.094 | 0.895 | 0.035 | 0.972 | 0.032 |
| FIBER STRENGTH: | | | | | | | | |
| HVI 1/8 " GAGE ------- G/TEX | 24.1 | 2.0 | 26.4 | 2.2 | 27.2 | 2.3 | - | - |
| STELOMETER 1/8" GAGE - G/TEX | 21.7 | 1.3 | 23.6 | 2.2 | 26.9 | 0.4 | 34.1 | 1.4 |
| STEL. ELONGATION ------ PCT. | 6.87 | 0.61 | 6.13 | 0.53 | 6.45 | 0.07 | 7.26 | 0.49 |
| SHIRLEY ANALYZER: | | | | | | | | |
| VISIBLE WASTE --------- PCT. | 2.70 | 1.31 | 1.76 | 0.80 | 1.50 | 0.28 | 1.77 | 0.56 |
| TOTAL WASTE ---------- PCT. | 4.36 | 1.62 | 2.99 | 1.05 | 2.40 | 0.14 | 3.13 | 0.73 |
| COLOR OF RAW STOCK | | | | | | | | |
| GRAYNESS (Rd) --------- PCT. | 73.83 | 4.18 | 75.22 | 4.45 | 77.50 | 2.12 | 65.87 | 1.76 |
| YELLOWNESS (+b) ------ UNITS | 9.27 | 0.88 | 8.62 | 0.48 | 7.85 | 0.07 | 11.95 | 0.38 |
| SUGAR CONTENT ---------- PCT. | 0.288 | 0.107 | 0.298 | 0.099 | 0.340 | 0.028 | 0.222 | 0.031 |

TABLE 9.--CONTINUED

| TEST ITEM | 35 SHORT STAPLE SAMPLES | | 161 MEDIUM STAPLE SAMPLES | | 2 LONG STAPLE SAMPLES | | 12 EXTRA LONG STAPLE SAMPLES | |
|---|---|---|---|---|---|---|---|---|
| | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION |
| MANUFACTURING WASTE: | | | | | | | | |
| PICKER AND CARD ------- PCT. | 7.57 | 1.53 | 6.57 | 1.22 | 7.50 | 0.28 | 7.38 | 1.14 |
| COMBER WASTE ---------- PCT. | - | - | - | - | 18.20 | 0.14 | 15.46 | 0.58 |
| CARDED YARN DATA: | | | | | | | | |
| YARN SKEIN STRENGTH: | | | | | | | | |
| 8s (74 TEX) ---------- LBS. | 299.7 | 18.1 | - | - | - | - | | |
| 22s (27 TEX) ---------- LBS. | 94.3 | 6.0 | 105.6 | 14.6 | 136.0 | 9.9 | | |
| 50s (12 TEX) ---------- LBS. | - | - | 34.8 | 7.0 | 47.5 | 0.7 | | |
| AVERAGE BREAK FACTOR --- NO. | 2235.6 | 135.5 | 2030.9 | 332.9 | 2683.5 | 126.6 | | |
| YARN ELONGATION: | | | | | | | | |
| 8s (74 TEX) ---------- PCT. | 7.63 | 0.77 | - | - | - | - | | |
| 22s (27 TEX) ---------- PCT. | 6.72 | 0.66 | 6.21 | 0.45 | 6.60 | 0.14 | | |
| 50s (12 TEX) ---------- PCT. | - | - | 4.71 | 0.47 | 5.45 | 0.21 | | |
| YARN APPEARANCE: | | | | | | | | |
| 8s (74 TEX) --------- INDEX | 103.1 | 9.6 | - | - | - | - | | |
| 22s (27 TEX) --------- INDEX | 97.4 | 10.7 | 102.9 | 8.3 | 100.0 | 0.0 | | |
| 50s (12 TEX) --------- INDEX | - | - | 70.6 | 7.9 | 70.0 | 0.0 | | |
| YARN NEPS: | | | | | | | | |
| 8s (74 TEX) ---------- NO. | 22.5 | 11.8 | - | - | - | - | | |
| 22s (27 TEX) ---------- NO. | 121.7 | 92.9 | 141.9 | 69.2 | 80.0 | 7.1 | | |
| 50s (12 TEX) ---------- NO. | - | - | 889.6 | 263.5 | 582.5 | 13.4 | | |
| SPINNING POTENTIAL ------- NO. | 46.2 | 5.6 | 58.6 | 11.5 | 94.0 | 2.8 | | |

TABLE 9.--CONTINUED

| TEST ITEM | 34 SHORT STAPLE SAMPLES | | 161 MEDIUM STAPLE SAMPLES | | 2 LONG STAPLE SAMPLES | | 12 EXTRA LONG STAPLE SAMPLES | |
|---|---|---|---|---|---|---|---|---|
| | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION | MEAN | STANDARD DEVIATION |
| CARDED YARN SPUN ON AN OPEN-END FRAME : | | | | | | | | |
| YARN SKEIN STRENGTH: | | | | | | | | |
| 8s (74 TEX) ---------- LBS. | 246.1 | 16.1 | | | | | | |
| BREAK FACTOR ---------- NO. | 1968.5 | 128.8 | | | | | | |
| YARN ELONGATION: | | | | | | | | |
| 8s (74 TEX) ---------- PCT. | 7.50 | 0.53 | | | | | | |
| YARN APPEARANCE: | | | | | | | | |
| 8s (74 TEX) --------- INDEX | 106.5 | 7.7 | | | | | | |
| YARN NEPS: | | | | | | | | |
| 8s (74 TEX) ---------- NO. | 2.8 | 3.4 | | | | | | |
| COMBED YARN DATA: | | | | | | | | |
| YARN SKEIN STRENGTH: | | | | | | | | |
| 22s (27 TEX) ---------- LBS. | | | | | 151.0 | 1.4 | - | - |
| 50s (12 TEX) ---------- LBS. | | | | | 55.5 | 0.7 | 67.3 | 2.6 |
| 80s (7.4 TEX) --------- LBS. | | | | | - | - | 35.8 | 1.8 |
| AVERAGE BREAK FACTOR --- NO. | | | | | 3048.5 | 33.2 | 3116.7 | 135.2 |
| YARN ELONGATION: | | | | | | | | |
| 22s (27 TEX) ---------- PCT. | | | | | 6.65 | 0.07 | - | - |
| 50s (12 TEX) ---------- PCT. | | | | | 5.60 | 0.28 | 5.72 | 0.23 |
| 80s (7.4 TEX) --------- PCT. | | | | | - | - | 5.04 | 0.21 |
| YARN APPEARANCE: | | | | | | | | |
| 22s (27 TEX) --------- INDEX | | | | | 130.0 | 0.0 | - | - |
| 50s (12 TEX) --------- INDEX | | | | | 110.0 | 0.0 | 121.7 | 5.8 |
| 80s (7.4 TEX) -------- INDEX | | | | | - | - | 112.5 | 4.5 |
| YARN NEPS: | | | | | | | | |
| 22s (27 TEX) ---------- NO. | | | | | 19.5 | 0.7 | - | - |
| 50s (12 TEX) ---------- NO. | | | | | 164.0 | 24.0 | 87.8 | 24.9 |
| 80s (7.4 TEX) ---------- NO. | | | | | - | - | 318.6 | 75.0 |

TABLE 10.--COTTON: SIMPLE CORRELATION ANALYSIS FOR FIBER AND PROCESSING TEST RESULTS FROM 35 SHORT STAPLE SAMPLES COLLECTED FROM SELECTED GIN POINTS, CROP OF 1984.

| TEST ITEM | CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | |
| | SIMPLE CORRELATION COEFFICIENTS (r's) | | | | | | | | | | | | |
| CLASSIFICATION: | | | | | | | | | | | | | |
| GRADE ---------- INDEX | +1.00 | -.32 | -.24 | +.33 | +.40 | +.31 | +.56 | -.29 | -.03 | -.17 | +.67 | -.25 | +.29 |
| STAPLE -------- 32ND IN. | -.32 | +1.00 | +.91 | -.41 | -.56 | -.49 | -.50 | +.41 | +.47 | -.19 | -.11 | +.20 | +.56 |
| FIBER LENGTH: | | | | | | | | | | | | | |
| UPPER HALF MEAN --- IN. | -.24 | +.91 | +1.00 | -.33 | -.42 | -.38 | -.36 | +.38 | +.50 | -.26 | -.13 | +.24 | +.56 |
| MEAN/UHM UNIF. ---- PCT. | +.33 | -.41 | -.33 | +1.00 | +.61 | +.65 | +.47 | -.11 | -.11 | +.15 | +.27 | -.26 | -.24 |
| MICRONAIRE ---------- RDG. | +.40 | -.56 | -.42 | +.61 | +1.00 | +.94 | +.92 | -.55 | -.54 | -.24 | -.05 | +.24 | -.26 |
| IIC-SHIRLEY: | | | | | | | | | | | | | |
| FINENESS ---------- MTEX | +.31 | -.49 | -.38 | +.65 | +.94 | +1.00 | +.83 | -.40 | -.50 | -.17 | -.10 | +.21 | -.33 |
| MATURITY --------- RATIO | +.56 | -.50 | -.36 | +.47 | +.92 | +.83 | +1.00 | -.62 | -.51 | -.36 | +.04 | +.26 | -.12 |
| FIBER STRENGTH: | | | | | | | | | | | | | |
| HVI 1/8" GAGE ---- G/TEX | -.29 | +.41 | +.38 | -.11 | -.55 | -.40 | -.62 | +1.00 | +.62 | +.53 | +.08 | -.35 | -.01 |
| STEL. 1/8" GAGE -- G/TEX | -.03 | +.47 | +.50 | -.11 | -.54 | -.50 | -.51 | +.62 | +1.00 | +.23 | +.38 | -.40 | +.53 |
| STEL. ELONGATION -- PCT. | -.17 | -.19 | -.26 | +.15 | -.24 | -.17 | -.36 | +.53 | +.23 | +1.00 | +.14 | -.49 | -.44 |
| COLOR OF RAW STOCK: | | | | | | | | | | | | | |
| GRAYNESS (Rd) ----- PCT. | +.67 | -.11 | -.13 | +.27 | -.05 | -.10 | +.04 | +.08 | +.38 | +.14 | +1.00 | -.72 | +.45 |
| YELLOWNESS (+b) -- UNITS | -.25 | +.20 | +.24 | -.26 | +.24 | +.21 | +.26 | -.35 | -.40 | -.49 | -.72 | +1.00 | -.07 |
| SUGAR CONTENT ------- PCT. | +.29 | +.56 | +.56 | -.24 | -.26 | -.33 | -.12 | -.01 | +.53 | -.44 | +.45 | -.07 | +1.00 |
| SHIRLEY ANALYZER: | | | | | | | | | | | | | |
| VISIBLE WASTE ----- PCT. | -.69 | +.50 | +.35 | -.26 | -.52 | -.48 | -.61 | +.26 | +.34 | +.06 | -.28 | +.01 | +.22 |
| TOTAL WASTE ------- PCT. | -.76 | +.47 | +.31 | -.32 | -.62 | -.56 | -.73 | +.30 | +.23 | +.15 | -.36 | +.01 | +.09 |
| PICKER AND CARD WASTE ---------- PCT. | -.57 | +.39 | +.28 | -.27 | -.29 | -.29 | -.28 | -.08 | +.08 | -.10 | -.34 | +.29 | +.18 |
| YARN STRENGTH: | | | | | | | | | | | | | |
| 8s (74 TEX) ------ LBS. | +.11 | +.37 | +.32 | +.20 | -.42 | -.35 | -.43 | +.51 | +.81 | +.27 | +.65 | -.63 | +.48 |
| 22s (27 TEX) ------ LBS. | +.11 | +.34 | +.32 | +.16 | -.44 | -.38 | -.41 | +.45 | +.76 | +.17 | +.59 | -.59 | +.44 |
| AVG. BREAK FACTOR -- NO. | +.11 | +.36 | +.33 | +.18 | -.44 | -.37 | -.43 | +.49 | +.80 | +.23 | +.63 | -.62 | +.47 |
| YARN ELONGATION: | | | | | | | | | | | | | |
| 8s (74 TEX) ------ PCT. | +.00 | +.36 | +.25 | +.03 | -.58 | -.49 | -.62 | +.62 | +.64 | +.45 | +.56 | -.65 | +.29 |
| 22s (27 TEX) ------ PCT. | -.17 | +.33 | +.24 | -.10 | -.65 | -.56 | -.69 | +.60 | +.63 | +.38 | +.46 | -.57 | +.23 |
| YARN APPEARANCE: | | | | | | | | | | | | | |
| 8s (74 TEX) ----- INDEX | +.59 | -.51 | -.55 | +.49 | +.55 | +.52 | +.57 | -.30 | -.23 | +.08 | +.46 | -.21 | -.16 |
| 22s (27 TEX) ----- INDEX | +.74 | -.35 | -.27 | +.59 | +.54 | +.54 | +.59 | -.17 | -.05 | +.04 | +.65 | -.42 | +.05 |
| YARN NEPS: | | | | | | | | | | | | | |
| 8s (74 TEX) ------- NO. | -.32 | +.07 | +.02 | -.61 | -.19 | -.22 | -.12 | -.15 | -.27 | -.14 | -.49 | +.51 | -.08 |
| 22s (27 TEX) ------- NO. | -.59 | +.36 | +.34 | -.53 | -.32 | -.31 | -.28 | -.00 | -.07 | -.20 | -.73 | +.65 | -.02 |
| SPINNING POTENTIAL --- NO. | +.19 | +.34 | +.33 | +.08 | -.37 | -.30 | -.32 | +.50 | +.70 | +.34 | +.56 | -.55 | +.38 |

TABLE 10.--CONTINUED

| TEST ITEM | SHIRLEY ANALYZER NON-LINT CONTENT: VISIBLE WASTE | SHIRLEY ANALYZER NON-LINT CONTENT: TOTAL WASTE | PICKER & CARD WASTE | YARN PROPERTIES: STRENGTH 8s | STRENGTH 22s | STRENGTH BR. FACTOR | ELONGATION 8s | ELONGATION 22s | APPEARANCE 8s | APPEARANCE 22s | NEPS 8s | NEPS 22s | SPY NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | - - - - - - - - - - - - SIMPLE CORRELATION COEFFICIENTS (r's) - - - - - - - - - - - - | | | | | | | | | | | | |
| CLASSIFICATION: | | | | | | | | | | | | | |
| GRADE ---------- INDEX | -.69 | -.76 | -.57 | +.11 | +.11 | +.11 | +.00 | -.17 | +.59 | +.74 | -.32 | -.59 | +.19 |
| STAPLE -------- 32ND IN. | +.50 | +.47 | +.39 | +.37 | +.34 | +.36 | +.36 | +.33 | -.51 | -.35 | +.07 | +.36 | +.34 |
| FIBER LENGTH: | | | | | | | | | | | | | |
| UPPER HALF MEAN ---- IN. | +.35 | +.31 | +.28 | +.32 | +.32 | +.33 | +.25 | +.24 | -.55 | -.27 | +.02 | +.34 | +.33 |
| MEAN/UHM UNIF. ---- PCT. | -.26 | -.32 | -.27 | +.20 | +.16 | +.18 | +.03 | -.10 | +.49 | +.59 | -.61 | -.53 | +.08 |
| MICRONAIRE ---------- RDG. | -.52 | -.62 | -.29 | -.42 | -.44 | -.44 | -.58 | -.65 | +.55 | +.54 | -.19 | -.32 | -.37 |
| IIC-SHIRLEY: | | | | | | | | | | | | | |
| FINENESS ---------- MTEX | -.48 | -.56 | -.29 | -.35 | -.38 | -.37 | -.49 | -.56 | +.52 | +.54 | -.22 | -.31 | -.30 |
| MATURITY --------- RATIO | -.61 | -.73 | -.28 | -.43 | -.41 | -.43 | -.62 | -.69 | +.57 | +.59 | -.12 | -.28 | -.32 |
| FIBER STRENGTH: | | | | | | | | | | | | | |
| HVI 1/8" GAGE ---- G/TEX | +.26 | +.30 | -.08 | +.51 | +.45 | +.49 | +.62 | +.60 | -.30 | -.17 | -.15 | -.00 | +.50 |
| STEL. 1/8" GAGE -- G/TEX | +.34 | +.23 | +.08 | +.81 | +.76 | +.80 | +.64 | +.63 | -.23 | -.05 | -.27 | -.07 | +.70 |
| STEL. ELONGATION -- PCT. | +.06 | +.15 | -.10 | +.27 | +.17 | +.23 | +.45 | +.38 | +.08 | +.04 | -.14 | -.20 | +.34 |
| COLOR OF RAW STOCK: | | | | | | | | | | | | | |
| GRAYNESS (Rd) ----- PCT. | -.28 | -.36 | -.34 | +.65 | +.59 | +.63 | +.56 | +.46 | +.46 | +.65 | -.49 | -.73 | +.56 |
| YELLOWNESS (+b) -- UNITS | +.01 | +.01 | +.29 | -.63 | -.59 | -.62 | -.65 | -.57 | -.21 | -.42 | +.51 | +.65 | -.55 |
| SUGAR CONTENT ------- PCT. | +.22 | +.09 | +.18 | +.48 | +.44 | +.47 | +.29 | +.23 | -.16 | +.05 | -.08 | -.02 | +.38 |
| SHIRLEY ANALYZER: | | | | | | | | | | | | | |
| VISIBLE WASTE ----- PCT. | +1.00 | +.94 | +.72 | +.24 | +.20 | +.22 | +.18 | +.28 | -.40 | -.52 | +.11 | +.44 | +.00 |
| TOTAL WASTE ------- PCT. | +.94 | +1.00 | +.64 | +.14 | +.11 | +.13 | +.21 | +.29 | -.52 | -.62 | +.16 | +.48 | -.03 |
| PICKER AND CARD WASTE ---------- PCT. | +.72 | +.64 | +1.00 | +.00 | +.03 | +.02 | -.07 | -.01 | -.30 | -.44 | +.26 | +.52 | -.12 |
| YARN STRENGTH: | | | | | | | | | | | | | |
| 8s (74 TEX) ------ LBS. | +.24 | +.14 | +.00 | +1.00 | +.93 | +.98 | +.80 | +.78 | +.02 | +.22 | -.49 | -.39 | +.82 |
| 22s (27 TEX) ------ LBS. | +.20 | +.11 | +.03 | +.93 | +1.00 | +.98 | +.75 | +.71 | -.03 | +.19 | -.53 | -.37 | +.79 |
| AVG. BREAK FACTOR -- NO. | +.22 | +.13 | +.02 | +.98 | +.98 | +1.00 | +.79 | +.76 | -.00 | +.21 | -.52 | -.38 | +.82 |
| YARN ELONGATION: | | | | | | | | | | | | | |
| 8s (74 TEX) ------ PCT. | +.18 | +.21 | -.07 | +.80 | +.75 | +.79 | +1.00 | +.86 | -.07 | +.04 | -.36 | -.33 | +.76 |
| 22s (27 TEX) ------ PCT. | +.28 | +.29 | -.01 | +.78 | +.71 | +.76 | +.86 | +1.00 | -.13 | -.08 | -.33 | -.26 | +.68 |
| YARN APPEARANCE: | | | | | | | | | | | | | |
| 8s (74 TEX) ----- INDEX | -.40 | -.52 | -.30 | +.02 | -.03 | -.00 | -.07 | -.13 | +1.00 | +.74 | -.37 | -.60 | -.06 |
| 22s (27 TEX) ----- INDEX | -.52 | -.62 | -.44 | +.22 | +.19 | +.21 | +.04 | -.08 | +.74 | +1.00 | -.62 | -.77 | +.25 |
| YARN NEPS: | | | | | | | | | | | | | |
| 8s (74 TEX) ------- NO. | +.11 | +.16 | +.26 | -.49 | -.53 | -.52 | -.36 | -.33 | -.37 | -.62 | +1.00 | +.68 | -.44 |
| 22s (27 TEX) ------- NO. | +.44 | +.48 | +.52 | -.39 | -.37 | -.38 | -.33 | -.26 | -.60 | -.77 | +.68 | +1.00 | -.39 |
| SPINNING POTENTIAL --- NO. | +.00 | -.03 | -.12 | +.82 | +.79 | +.82 | +.76 | +.68 | -.06 | +.25 | -.44 | -.39 | +1.00 |

TABLE 10A.--COTTON: SIMPLE CORRELATION ANALYSIS FOR FIBER AND PROCESSING TEST RESULTS ON CARDED YARNS SPUN ON AN OPEN-END FRAME FROM 34 SHORT STAPLE SAMPLES COLLECTED FROM SELECTED GIN POINTS, CROP OF 1984.

| TEST ITEM | YARN PROPERTIES | | | | |
|---|---|---|---|---|---|
| | STRENGTH | | ELONGATION | APPEARANCE | NEPS |
| | 8s | : BR. FACTOR | 8s | 8s | 8s |
| | - - - - - - - - SIMPLE CORRELATION COEFFICIENTS (r's) - - - - - - - - | | | | |
| CLASSIFICATION: | | | | | |
| GRADE ---------- INDEX | +.01 | +.01 | -.29 | +.46 | +.05 |
| STAPLE -------- 32ND IN. | +.53 | +.53 | +.24 | -.18 | -.14 |
| FIBER LENGTH: | | | | | |
| UPPER HALF MEAN ---- IN. | +.48 | +.48 | +.14 | -.11 | -.14 |
| MEAN/UHM UNIF. ---- PCT. | -.24 | -.24 | -.19 | +.57 | +.03 |
| MICRONAIRE ---------- RDG. | -.69 | -.69 | -.62 | +.63 | -.00 |
| IIC-SHIRLEY: | | | | | |
| FINENESS ---------- MTEX | -.68 | -.68 | -.64 | +.60 | +.06 |
| MATURITY --------- RATIO | -.58 | -.58 | -.64 | +.61 | -.07 |
| FIBER STRENGTH: | | | | | |
| HVI 1/8" GAGE ---- G/TEX | +.56 | +.56 | +.52 | -.32 | +.27 |
| STEL. 1/8" GAGE -- G/TEX | +.80 | +.80 | +.44 | -.25 | +.16 |
| STEL. ELONGATION -- PCT. | +.13 | +.13 | +.56 | -.35 | +.18 |
| COLOR OF RAW STOCK: | | | | | |
| GRAYNESS (Rd) ----- PCT. | +.59 | +.59 | +.32 | -.07 | -.01 |
| YELLOWNESS (+b) -- UNITS | -.60 | -.60 | -.53 | +.32 | -.16 |
| SUGAR CONTENT ------- PCT. | +.56 | +.56 | +.14 | +.05 | -.02 |
| SHIRLEY ANALYZER: | | | | | |
| VISIBLE WASTE ----- PCT. | +.36 | +.36 | +.35 | -.17 | +.02 |
| TOTAL WASTE ------- PCT. | +.28 | +.28 | +.42 | -.30 | -.00 |
| PICKER AND CARD WASTE ---------- PCT. | +.17 | +.17 | +.16 | -.19 | -.19 |
| YARN STRENGTH: | | | | | |
| 8s (74 TEX) ------ LBS. | +1.00 | +1.00 | +.59 | -.33 | +.05 |
| AVG. BREAK FACTOR -- NO. | +1.00 | +1.00 | +.59 | -.33 | +.05 |
| YARN ELONGATION: | | | | | |
| 8s (74 TEX) ------ PCT. | +.59 | +.59 | +1.00 | -.63 | -.05 |
| YARN APPEARANCE: | | | | | |
| 8s (74 TEX) ----- INDEX | -.33 | -.33 | -.63 | +1.00 | +.16 |
| YARN NEPS: | | | | | |
| 8s (74 TEX) ------- NO. | +.05 | +.05 | -.05 | +.16 | +1.00 |

TABLE 11.--COTTON: SIMPLE CORRELATION ANALYSIS FOR FIBER AND PROCESSING TEST RESULTS FROM 161 MEDIUM STAPLE SAMPLES COLLECTED FROM SELECTED GIN POINTS, CROP OF 1984.

| TEST ITEM | CLASSIFICATION | | FIBER LENGTH | | MICRONAIRE | IIC-SHIRLEY FINENESS/MATURITY | | 1/8" GAGE STRENGTH | | STEL. 1/8" ELONGATION | COLOR OF RAW STOCK | | SUGAR CONTENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | GRADE | STAPLE | HVI UHM | M/UHM UNIF. | | FIN. | MAT. | HVI | STEL. | | Rd | +b | |
| | SIMPLE CORRELATION COEFFICIENTS (r's) | | | | | | | | | | | | |
| CLASSIFICATION: | | | | | | | | | | | | | |
| GRADE ---------- INDEX | +1.00 | +.16 | +.23 | +.48 | +.43 | +.21 | +.61 | +.43 | +.61 | -.30 | +.86 | +.17 | +.57 |
| STAPLE -------- 32ND IN. | +.16 | +1.00 | +.89 | +.49 | +.52 | +.41 | +.41 | +.49 | +.34 | -.23 | -.05 | -.29 | -.18 |
| FIBER LENGTH: | | | | | | | | | | | | | |
| UPPER HALF MEAN ---- IN. | +.23 | +.89 | +1.00 | +.57 | +.53 | +.41 | +.47 | +.49 | +.40 | -.23 | +.04 | -.27 | -.09 |
| MEAN/UHM UNIF. ---- PCT. | +.48 | +.49 | +.57 | +1.00 | +.63 | +.47 | +.63 | +.49 | +.59 | -.25 | +.31 | -.05 | +.15 |
| MICRONAIRE ---------- RDG. | +.43 | +.52 | +.53 | +.63 | +1.00 | +.79 | +.87 | +.21 | +.22 | -.37 | +.17 | -.14 | -.12 |
| IIC-SHIRLEY: | | | | | | | | | | | | | |
| FINENESS ---------- MTEX | +.21 | +.41 | +.41 | +.47 | +.79 | +1.00 | +.53 | +.04 | -.02 | -.23 | -.00 | -.18 | -.21 |
| MATURITY --------- RATIO | +.61 | +.41 | +.47 | +.63 | +.87 | +.53 | +1.00 | +.30 | +.38 | -.46 | +.37 | -.05 | +.09 |
| FIBER STRENGTH: | | | | | | | | | | | | | |
| HVI 1/8" GAGE ---- G/TEX | +.43 | +.49 | +.49 | +.49 | +.21 | +.04 | +.30 | +1.00 | +.84 | -.24 | +.42 | +.17 | +.17 |
| STEL. 1/8" GAGE -- G/TEX | +.61 | +.34 | +.40 | +.59 | +.22 | -.02 | +.38 | +.84 | +1.00 | -.29 | +.61 | +.19 | +.39 |
| STEL. ELONGATION -- PCT. | -.30 | -.23 | -.23 | -.25 | -.37 | -.23 | -.46 | -.24 | -.29 | +1.00 | -.17 | +.08 | -.07 |
| COLOR OF RAW STOCK: | | | | | | | | | | | | | |
| GRAYNESS (Rd) ----- PCT. | +.86 | -.05 | +.04 | +.31 | +.17 | -.00 | +.37 | +.42 | +.61 | -.17 | +1.00 | +.23 | +.67 |
| YELLOWNESS (+b) -- UNITS | +.17 | -.29 | -.27 | -.05 | -.14 | -.18 | -.05 | +.17 | +.19 | +.08 | +.23 | +1.00 | +.26 |
| SUGAR CONTENT ------- PCT. | +.57 | -.18 | -.09 | +.15 | -.12 | -.21 | +.09 | +.17 | +.39 | -.07 | +.67 | +.26 | +1.00 |
| SHIRLEY ANALYZER: | | | | | | | | | | | | | |
| VISIBLE WASTE ----- PCT. | -.64 | -.28 | -.30 | -.27 | -.47 | -.24 | -.57 | -.21 | -.27 | +.18 | -.44 | -.07 | -.09 |
| TOTAL WASTE ------- PCT. | -.69 | -.34 | -.37 | -.38 | -.55 | -.34 | -.63 | -.24 | -.31 | +.24 | -.47 | -.04 | -.15 |
| PICKER AND CARD WASTE ---------- PCT. | -.59 | -.31 | -.35 | -.39 | -.37 | -.21 | -.40 | -.34 | -.44 | +.09 | -.45 | -.11 | -.17 |
| YARN STRENGTH: | | | | | | | | | | | | | |
| 22s (27 TEX) ------ LBS. | +.57 | +.43 | +.47 | +.62 | +.21 | -.06 | +.37 | +.82 | +.91 | -.25 | +.54 | +.14 | +.38 |
| 50s (12 TEX) ------ LBS. | +.48 | +.47 | +.52 | +.62 | +.19 | -.05 | +.33 | +.82 | +.88 | -.25 | +.46 | +.09 | +.31 |
| AVG. BREAK FACTOR -- NO. | +.52 | +.45 | +.50 | +.62 | +.20 | -.06 | +.35 | +.83 | +.90 | -.25 | +.50 | +.12 | +.35 |
| YARN ELONGATION: | | | | | | | | | | | | | |
| 22s (27 TEX) ------ PCT. | +.02 | +.12 | +.11 | +.07 | -.33 | -.36 | -.30 | +.28 | +.30 | +.32 | +.12 | +.03 | +.25 |
| 50s (12 TEX) ------ PCT. | -.01 | +.17 | +.14 | +.04 | -.27 | -.29 | -.25 | +.39 | +.30 | +.20 | +.10 | -.00 | +.11 |
| YARN APPEARANCE: | | | | | | | | | | | | | |
| 22s (27 TEX) ----- INDEX | +.14 | -.00 | +.03 | +.20 | +.25 | +.24 | +.23 | -.09 | -.04 | +.08 | +.06 | +.12 | +.02 |
| 50s (12 TEX) ----- INDEX | +.22 | +.16 | +.19 | +.37 | +.26 | +.22 | +.24 | +.19 | +.27 | -.06 | +.11 | +.05 | +.05 |
| YARN NEPS: | | | | | | | | | | | | | |
| 22s (27 TEX) ------- NO. | +.28 | +.26 | +.32 | +.28 | +.13 | -.05 | +.20 | +.40 | +.39 | -.25 | +.26 | +.04 | +.21 |
| 50s (12 TEX) ------- NO. | -.14 | +.14 | +.16 | -.24 | +.12 | +.12 | +.03 | -.18 | -.22 | -.10 | -.18 | -.18 | -.21 |
| SPINNING POTENTIAL --- NO. | +.43 | +.50 | +.56 | +.63 | +.16 | -.06 | +.31 | +.75 | +.82 | -.23 | +.39 | +.04 | +.30 |

TABLE 11.--CONTINUED

| TEST ITEM | SHIRLEY ANALYZER NON-LINT CONTENT: VISIBLE WASTE | SHIRLEY ANALYZER NON-LINT CONTENT: TOTAL WASTE | PICKER & CARD WASTE | YARN PROPERTIES: STRENGTH: 22s | STRENGTH: 50s | STRENGTH: BR. FACTOR | ELONGATION: 22s | ELONGATION: 50s | APPEARANCE: 22s | APPEARANCE: 50s | NEPS: 22s | NEPS: 50s | SPY NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SIMPLE CORRELATION COEFFICIENTS (r's) | | | | | | | | | | | | |
| CLASSIFICATION: | | | | | | | | | | | | | |
| GRADE ---------- INDEX | -.64 | -.69 | -.59 | +.57 | +.48 | +.52 | +.02 | -.01 | +.14 | +.22 | +.28 | -.14 | +.43 |
| STAPLE -------- 32ND IN. | -.28 | -.34 | -.31 | +.43 | +.47 | +.45 | +.12 | +.17 | -.00 | +.16 | +.26 | +.14 | +.50 |
| FIBER LENGTH: | | | | | | | | | | | | | |
| UPPER HALF MEAN ---- IN. | -.30 | -.37 | -.35 | +.47 | +.52 | +.50 | +.11 | +.14 | +.03 | +.19 | +.32 | +.16 | +.56 |
| MEAN/UHM UNIF. ---- PCT. | -.27 | -.38 | -.39 | +.62 | +.62 | +.62 | +.07 | +.04 | +.20 | +.37 | +.28 | -.24 | +.63 |
| MICRONAIRE ---------- RDG. | -.47 | -.55 | -.37 | +.21 | +.19 | +.20 | -.33 | -.27 | +.25 | +.26 | +.13 | +.12 | +.16 |
| IIC-SHIRLEY: | | | | | | | | | | | | | |
| FINENESS ---------- MTEX | -.24 | -.34 | -.21 | -.06 | -.05 | -.06 | -.36 | -.29 | +.24 | +.22 | -.05 | +.12 | -.06 |
| MATURITY --------- RATIO | -.57 | -.63 | -.40 | +.37 | +.33 | +.35 | -.30 | -.25 | +.23 | +.24 | +.20 | +.03 | +.31 |
| FIBER STRENGTH: | | | | | | | | | | | | | |
| HVI 1/8" GAGE ---- G/TEX | -.21 | -.24 | -.34 | +.82 | +.82 | +.83 | +.28 | +.39 | -.09 | +.19 | +.40 | -.18 | +.75 |
| STEL. 1/8" GAGE -- G/TEX | -.27 | -.31 | -.44 | +.91 | +.88 | +.90 | +.30 | +.30 | -.04 | +.27 | +.39 | -.22 | +.82 |
| STEL. ELONGATION -- PCT. | +.18 | +.24 | +.09 | -.25 | -.25 | -.25 | +.32 | +.20 | +.08 | -.06 | -.25 | -.10 | -.23 |
| COLOR OF RAW STOCK: | | | | | | | | | | | | | |
| GRAYNESS (Rd) ----- PCT. | -.44 | -.47 | -.45 | +.54 | +.46 | +.50 | +.12 | +.10 | +.06 | +.11 | +.26 | -.18 | +.39 |
| YELLOWNESS (+b) -- UNITS | -.07 | -.04 | -.11 | +.14 | +.09 | +.12 | +.03 | -.00 | +.12 | +.05 | +.04 | -.18 | +.04 |
| SUGAR CONTENT ------- PCT. | -.09 | -.15 | -.17 | +.38 | +.31 | +.35 | +.25 | +.11 | +.02 | +.05 | +.21 | -.21 | +.30 |
| SHIRLEY ANALYZER: | | | | | | | | | | | | | |
| VISIBLE WASTE ----- PCT. | +1.00 | +.91 | +.67 | -.27 | -.23 | -.25 | +.15 | +.10 | -.14 | -.08 | -.17 | -.03 | -.21 |
| TOTAL WASTE ------- PCT. | +.91 | +1.00 | +.66 | -.33 | -.28 | -.31 | +.11 | +.11 | -.25 | -.17 | -.11 | +.05 | -.28 |
| PICKER AND CARD WASTE ---------- PCT. | +.67 | +.66 | +1.00 | -.48 | -.46 | -.48 | -.03 | -.11 | -.19 | -.27 | -.16 | +.14 | -.45 |
| YARN STRENGTH: | | | | | | | | | | | | | |
| 22s (27 TEX) ------ LBS. | -.27 | -.33 | -.48 | +1.00 | +.98 | +.99 | +.43 | +.41 | +.00 | +.36 | +.40 | -.35 | +.93 |
| 50s (12 TEX) ------ LBS. | -.23 | -.28 | -.46 | +.98 | +1.00 | +.99 | +.45 | +.47 | -.02 | +.36 | +.41 | -.34 | +.94 |
| AVG. BREAK FACTOR -- NO. | -.25 | -.31 | -.48 | +.99 | +.99 | +1.00 | +.45 | +.45 | -.01 | +.36 | +.40 | -.34 | +.94 |
| YARN ELONGATION: | | | | | | | | | | | | | |
| 22s (27 TEX) ------ PCT. | +.15 | +.11 | -.03 | +.43 | +.45 | +.45 | +1.00 | +.58 | -.10 | +.15 | +.06 | -.26 | +.48 |
| 50s (12 TEX) ------ PCT. | +.10 | +.11 | -.11 | +.41 | +.47 | +.45 | +.58 | +1.00 | -.16 | +.05 | +.15 | -.35 | +.42 |
| YARN APPEARANCE: | | | | | | | | | | | | | |
| 22s (27 TEX) ----- INDEX | -.14 | -.25 | -.19 | +.00 | -.02 | -.01 | -.10 | -.16 | +1.00 | +.47 | -.27 | -.31 | +.01 |
| 50s (12 TEX) ----- INDEX | -.08 | -.17 | -.27 | +.36 | +.36 | +.36 | +.15 | +.05 | +.47 | +1.00 | -.24 | -.45 | +.40 |
| YARN NEPS: | | | | | | | | | | | | | |
| 22s (27 TEX) ------- NO. | -.17 | -.11 | -.16 | +.40 | +.41 | +.40 | +.06 | +.15 | -.27 | -.24 | +1.00 | +.29 | +.37 |
| 50s (12 TEX) ------- NO. | -.03 | +.05 | +.14 | -.35 | -.34 | -.34 | -.26 | -.35 | -.31 | -.45 | +.29 | +1.00 | -.35 |
| SPINNING POTENTIAL --- NO. | -.21 | -.28 | -.45 | +.93 | +.94 | +.94 | +.48 | +.42 | +.01 | +.40 | +.37 | -.35 | +1.00 |

TABLE 12.--COTTON: MULTIPLE REGRESSION ANALYSIS FOR SELECTED FIBER TEST MEASUREMENTS WITH PROCESSING TESTS, 35 SHORT STAPLE SAMPLES COLLECTED FROM SELECTED GIN POINTS, CROP OF 1984.

| COMBINATIONS OF INDEPENDENT VARIABLES | DEPENDENT VARIABLES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | PICKER & CARD WASTE | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | SPINNING POTENTIAL |
| | | 8s | 22s | BR. FACTOR | 8s | 22s | 8s | 22s | 8s | 22s | |
| **GRADE, STAPLE AND MIKE:** | | | | | | | | | | | |
| R-SQUARE | 0.38 | 0.31 | 0.31 | 0.32 | 0.40 | 0.43 | 0.51 | 0.62 | 0.11 | 0.38 | 0.31 |
| CONSTANT (a) | +3.93 | +158.91 | +59.16 | +1286.38 | +6.18 | +9.06 | +109.47 | +7.12 | +95.54 | +126.83 | -1.99 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | | | | | | | |
| GRADE | -0.09 | +0.75 | +0.24 | +5.67 | +0.03 | +0.01 | +0.46 | +0.76 | -0.41 | -5.55 | +0.27 |
| STAPLE | +0.34 | +3.79 | +0.95 | +25.57 | +0.06 | -0.01 | -1.90 | +0.22 | -0.96 | +15.19 | +1.17 |
| MICRONAIRE | +0.17 | -12.66 | -4.64 | -101.63 | -0.80 | -0.76 | +4.01 | +5.42 | -2.37 | -1.12 | -3.61 |
| STANDARD ERROR OF ESTIMATE | 1.26 | 15.66 | 5.20 | 116.84 | 0.62 | 0.52 | 7.08 | 6.91 | 11.68 | 76.80 | 4.82 |
| * * * * * * * * * * * | | | | | | | | | | | |
| **GRADE, UHM LENGTH, M/UHM UNIFORMITY, MICRONAIRE, AND HVI 1/8" GAGE STRENGTH:** | | | | | | | | | | | |
| R-SQUARE | 0.48 | 0.64 | 0.60 | 0.64 | 0.67 | 0.60 | 0.59 | 0.70 | 0.50 | 0.54 | 0.51 |
| CONSTANT (a) | +4.39 | -677.20 | -219.37 | -5121.87 | -21.06 | -9.99 | +40.77 | -214.73 | +726.13 | +2832.6 | +154.55 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | | | | | | | |
| GRADE | -0.10 | +0.62 | +0.20 | +4.73 | +0.02 | +0.01 | +0.45 | +0.74 | -0.32 | -5.40 | +0.26 |
| UHM LENGTH | +8.72 | +100.31 | +34.40 | +779.60 | +0.44 | -0.70 | -82.24 | -1.21 | -38.08 | +472.03 | +30.61 |
| M/UHM UNIFORMITY | +0.19 | +11.03 | +3.62 | +83.95 | +0.34 | +0.23 | +1.03 | +2.78 | -8.10 | -31.39 | +1.83 |
| MICRONAIRE | -0.78 | -22.31 | -7.94 | -176.57 | -1.00 | -0.85 | +3.50 | +3.79 | +4.42 | +8.29 | -4.38 |
| HVI 1/8" GAGE STRENGTH | -0.36 | +1.46 | +0.21 | +8.18 | +0.11 | +0.08 | +0.43 | +0.79 | -0.73 | -10.88 | +0.82 |
| STANDARD ERROR OF ESTIMATE | 1.19 | 11.76 | 4.09 | 87.90 | 0.48 | 0.45 | 6.71 | 6.32 | 9.09 | 68.07 | 4.21 |

TABLE 12.--CONTINUED

| COMBINATIONS OF INDEPENDENT VARIABLES | DEPENDENT VARIABLES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | PICKER & CARD WASTE | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | SPINNING POTENTIAL |
| | | 8s | 22s | BR. FACTOR | 8s | 22s | 8s | 22s | 8s | 22s | |
| GRAYNESS (Rd), YELLOWNESS (+b), TRASH GRADE, UHM LENGTH, M/UHM UNIFORMITY, MICRONAIRE, AND HVI 1/8" GAGE STRENGTH: | | | | | | | | | | | |
| R-SQUARE | 0.42 | 0.80 | 0.72 | 0.79 | 0.80 | 0.73 | 0.65 | 0.79 | 0.58 | 0.76 | 0.66 |
| CONSTANT (a) | -5.39 | -510.50 | -160.88 | -3811.65 | -14.64 | -5.80 | -16.67 | -71.63 | +546.61 | +950.72 | -79.64 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | | | | | | | |
| GRAYNESS (Rd) | -0.05 | +1.98 | +0.50 | +13.41 | +0.08 | +0.06 | +1.49 | +1.28 | -0.43 | -9.31 | +0.33 |
| YELLOWNESS (+b) | +0.11 | -2.15 | -0.95 | -19.10 | -0.11 | -0.07 | +3.47 | -2.36 | +4.76 | +41.62 | -1.43 |
| TRASH GRADE | +0.69 | -0.63 | -0.56 | -8.66 | +0.19 | +0.17 | +0.29 | -1.34 | -0.43 | +7.70 | -1.85 |
| UHM LENGTH | +6.73 | +139.63 | +48.23 | +1089.05 | +1.90 | +0.31 | -98.53 | +30.85 | -80.84 | +29.46 | +48.39 |
| M/UHM UNIFORMITY | +0.25 | +7.22 | +2.51 | +56.49 | +0.18 | +0.10 | +0.46 | +0.30 | -5.70 | -2.76 | +0.79 |
| MICRONAIRE | -1.20 | -12.97 | -5.14 | -108.45 | -0.56 | -0.55 | +6.00 | +11.44 | -2.05 | -69.87 | -1.68 |
| HVI 1/8" GAGE STRENGTH | -0.37 | +1.18 | +0.12 | +6.05 | +0.08 | +0.06 | +0.63 | +0.42 | -0.09 | -5.61 | +0.76 |
| STANDARD ERROR OF ESTIMATE | 1.31 | 8.96 | 3.54 | 69.68 | 0.39 | 0.39 | 6.42 | 5.47 | 8.60 | 50.78 | 3.64 |
| * * * * * * * * * * * * | | | | | | | | | | | |
| GRAYNESS (Rd), YELLOWNESS (+b), NON-LINT CONTENT, UHM LENGTH, M/UHM UNIFORMITY, MICRONAIRE, STEL. 1/8" GAGE STRENGTH, STEL. ELONGATION, FMT FINENESS, FMT MATURITY, AND SUGAR: | | | | | | | | | | | |
| R-SQUARE | 0.58 | 0.91 | 0.80 | 0.88 | 0.83 | 0.77 | 0.73 | 0.87 | 0.60 | 0.80 | 0.71 |
| CONSTANT (a) | -12.70 | -412.10 | -139.13 | -3178.81 | -9.00 | -0.68 | -89.58 | -160.45 | +527.17 | +766.00 | -94.30 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | | | | | | | |
| GRAYNESS (Rd) | +0.06 | +2.16 | +0.47 | +13.80 | +0.05 | +0.10 | +2.81 | +2.33 | -1.17 | -15.88 | +0.17 |
| YELLOWNESS (+b) | +0.66 | +0.42 | -0.67 | -5.73 | -0.12 | +0.01 | +5.68 | -1.17 | +3.79 | +38.37 | -1.16 |
| NON-LINT CONTENT | +0.93 | +1.07 | -0.04 | +3.81 | -0.12 | +0.00 | +2.86 | +1.60 | -1.21 | +2.85 | -0.74 |
| UHM LENGTH | -1.40 | +49.79 | +17.11 | +387.40 | +3.36 | +2.41 | -46.30 | +81.79 | -91.21 | -397.04 | +38.07 |
| M/UHM UNIFORMITY | -0.05 | +4.75 | +2.20 | +43.17 | +0.17 | -0.01 | -1.60 | -0.86 | -4.44 | +5.66 | +0.73 |
| MICRONAIRE | -1.08 | -10.63 | -4.49 | -91.92 | -0.26 | -0.04 | -3.13 | -4.69 | -7.24 | -118.42 | -6.16 |
| STEL. 1/8" GAGE STRENGTH | +0.13 | +6.75 | +2.21 | +51.38 | -0.03 | +0.11 | +1.64 | +0.14 | -1.93 | +0.39 | +1.10 |
| STEL. ELONGATION | +0.27 | -1.12 | -2.35 | -30.38 | +0.26 | -0.10 | +0.23 | +0.28 | +4.28 | +17.83 | +2.70 |
| FMT FINENESS | +0.00 | +0.32 | +0.02 | +1.47 | +0.01 | +0.01 | +0.22 | +0.28 | +0.02 | -0.08 | +0.10 |
| FMT MATURITY | +12.44 | -35.09 | -1.79 | -159.99 | -5.83 | -5.01 | +59.42 | +74.68 | +13.88 | +381.83 | +11.26 |
| SUGAR | +0.59 | -5.80 | -8.48 | -116.52 | +1.36 | -2.03 | -53.10 | -40.40 | +39.50 | +286.30 | +8.04 |
| STANDARD ERROR OF ESTIMATE | 1.21 | 6.71 | 3.23 | 57.87 | 0.38 | 0.39 | 6.06 | 4.76 | 9.04 | 50.93 | 3.66 |

TABLE 12A.--COTTON: MULTIPLE REGRESSION ANALYSIS FOR SELECTED FIBER TEST MEASUREMENTS WITH PROCESSING TESTS ON CARDED YARNS SPUN ON AN OPEN-END FRAME FROM 34 SHORT STAPLE SAMPLES COLLECTED FROM SELECTED GIN POINTS, CROP OF 1984.

| COMBINATIONS OF INDEPENDENT VARIABLES | DEPENDENT VARIABLES | | | | |
|---|---|---|---|---|---|
| | STRENGTH | | ELONGATION | APPEARANCE | NEPS |
| | 8s | BR. FACTOR | 8s | 8s | 8s |
| GRADE, STAPLE AND MIKE: | | | | | |
| R-SQUARE | 0.60 | 0.60 | 0.41 | 0.49 | 0.03 |
| CONSTANT (a) | +150.83 | +1206.61 | +12.02 | +5.77 | +21.52 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | |
| GRADE | +0.64 | +5.16 | -0.00 | +0.25 | +0.02 |
| STAPLE | +3.20 | +25.59 | -0.07 | +1.63 | -0.57 |
| MICRONAIRE | -18.06 | -144.44 | -0.58 | +8.30 | -0.71 |
| STANDARD ERROR OF ESTIMATE | 10.66 | 85.29 | 0.43 | 5.80 | 3.46 |
| * * * * * * * * * * * | | | | | |
| GRADE, UHM LENGTH, M/UHM UNIFORMITY, MICRONAIRE, AND HVI 1/8" GAGE STRENGTH: | | | | | |
| R-SQUARE | 0.69 | 0.69 | 0.49 | 0.53 | 0.19 |
| CONSTANT (a) | -184.61 | -1476.85 | +0.38 | -160.03 | +24.89 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | |
| GRADE | +0.68 | +5.45 | -0.00 | +0.24 | +0.05 |
| UHM LENGTH | +81.27 | +650.16 | -2.36 | +35.00 | -23.46 |
| M/UHM UNIFORMITY | +4.22 | +33.73 | +0.13 | +2.57 | -0.36 |
| MICRONAIRE | -21.03 | -168.24 | -0.61 | +4.60 | +1.09 |
| HVI 1/8" GAGE STRENGTH | +1.36 | +10.89 | +0.06 | -0.22 | +0.85 |
| STANDARD ERROR OF ESTIMATE | 9.70 | 77.61 | 0.41 | 5.75 | 3.29 |

TABLE 12A.--CONTINUED

| COMBINATIONS OF INDEPENDENT VARIABLES | DEPENDENT VARIABLES | | | | |
|---|---|---|---|---|---|
| | STRENGTH | | ELONGATION | APPEARANCE | NEPS |
| | 8s | BR. FACTOR | 8s | 8s | 8s |
| **GRAYNESS (Rd), YELLOWNESS (+b), TRASH GRADE, UHM LENGTH, M/UHM UNIFORMITY, MICRONAIRE, AND HVI 1/8" GAGE STRENGTH:** | | | | | |
| R-SQUARE | 0.82 | 0.82 | 0.55 | 0.62 | 0.27 |
| CONSTANT (a) | -92.64 | -741.08 | +1.10 | -199.74 | +33.24 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | |
| GRAYNESS (Rd) | +1.86 | +14.84 | +0.04 | -0.16 | -0.14 |
| YELLOWNESS (+b) | -3.48 | -27.87 | -0.04 | +1.63 | -0.48 |
| TRASH GRADE | -0.63 | -5.02 | +0.11 | -4.24 | -1.64 |
| UHM LENGTH | +106.36 | +850.89 | -2.10 | +24.60 | -20.79 |
| M/UHM UNIFORMITY | +1.90 | +15.20 | +0.08 | +3.58 | -0.19 |
| MICRONAIRE | -12.22 | -97.80 | -0.48 | +2.66 | +0.83 |
| HVI 1/8" GAGE STRENGTH | +1.03 | +8.24 | +0.05 | +0.21 | +0.94 |
| STANDARD ERROR OF ESTIMATE | 7.79 | 62.34 | 0.40 | 5.40 | 3.22 |
| * * * * * * * * * * * * | | | | | |
| **GRAYNESS (Rd), YELLOWNESS (+b), NON-LINT CONTENT, UHM LENGTH, M/UHM UNIFORMITY, MICRONAIRE, STEL. 1/8" GAGE STRENGTH, STEL. ELONGATION, FMT FINENESS, FMT MATURITY, AND SUGAR:** | | | | | |
| R-SQUARE | 0.87 | 0.87 | 0.68 | 0.58 | 0.23 |
| CONSTANT (a) | -86.01 | -688.10 | -0.92 | -192.14 | +68.13 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | |
| GRAYNESS (Rd) | +1.49 | +11.95 | +0.03 | -0.58 | -0.53 |
| YELLOWNESS (+b) | -3.62 | -28.96 | -0.02 | +0.92 | -0.86 |
| NON-LINT CONTENT | +0.94 | +7.52 | +0.04 | +0.11 | -0.72 |
| UHM LENGTH | +52.61 | +420.86 | +0.51 | -26.02 | -41.31 |
| M/UHM UNIFORMITY | +1.89 | +15.09 | +0.08 | +4.23 | -0.05 |
| MICRONAIRE | -14.89 | -119.15 | +0.14 | -3.63 | -1.51 |
| STEL. 1/8" GAGE STRENGTH | +4.83 | +38.66 | -0.07 | -0.08 | +0.60 |
| STEL. ELONGATION | -3.59 | -28.73 | +0.45 | -0.72 | +1.16 |
| FMT FINENESS | -0.03 | +0.28 | -0.01 | +0.06 | +0.11 |
| FMT MATURITY | +39.97 | +319.79 | -1.00 | +35.23 | -13.67 |
| SUGAR | -14.25 | -114.03 | +1.02 | +29.98 | +19.54 |
| STANDARD ERROR OF ESTIMATE | 7.23 | 57.85 | 0.36 | 6.12 | 3.60 |

TABLE 13.--COTTON: MULTIPLE REGRESSION ANALYSIS FOR SELECTED FIBER TEST MEASUREMENTS WITH PROCESSING TESTS, 161 MEDIUM STAPLE SAMPLES COLLECTED FROM SELECTED GIN POINTS, CROP OF 1984.

| COMBINATIONS OF INDEPENDENT VARIABLES | DEPENDENT VARIABLES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | PICKER & CARD WASTE | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | SPINNING POTENTIAL |
| | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| **GRADE, STAPLE AND MIKE:** | | | | | | | | | | | |
| R-SQUARE | 0.39 | 0.50 | 0.45 | 0.48 | 0.27 | 0.22 | 0.09 | 0.08 | 0.14 | 0.07 | 0.46 |
| CONSTANT (a) | +19.79 | -127.44 | -79.26 | -3383.33 | +2.81 | +1.06 | +114.48 | +39.80 | -475.53 | +661.04 | -134.95 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | | | | | | | |
| GRADE | -0.08 | +1.08 | +0.44 | +22.86 | +0.01 | +0.01 | +0.03 | +0.12 | +2.38 | -7.15 | +0.67 |
| STAPLE | -0.16 | +4.77 | +2.56 | +116.51 | +0.12 | +0.14 | -0.97 | +0.25 | +13.40 | +15.37 | +4.61 |
| MICRONAIRE | -0.09 | -8.40 | -4.07 | -194.11 | -0.53 | -0.48 | +4.91 | +2.59 | -18.09 | +84.57 | -7.49 |
| STANDARD ERROR OF ESTIMATE | 0.96 | 10.41 | 5.21 | 242.48 | 0.39 | 0.42 | 7.98 | 7.66 | 64.81 | 257.03 | 8.56 |
| * * * * * * * * * * * | | | | | | | | | | | |
| **GRADE, UHM LENGTH, M/UHM UNIFORMITY, MICRONAIRE, AND HVI 1/8" GAGE STRENGTH:** | | | | | | | | | | | |
| R-SQUARE | 0.39 | 0.81 | 0.79 | 0.81 | 0.32 | 0.31 | 0.12 | 0.14 | 0.20 | 0.28 | 0.75 |
| CONSTANT (a) | +17.91 | -345.32 | -190.49 | -8560.87 | -1.99 | +1.16 | +17.09 | -88.86 | -593.28 | +8112.8 | -367.04 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | | | | | | | |
| GRADE | -0.07 | +0.46 | +0.13 | +8.24 | +0.00 | -0.00 | +0.08 | +0.03 | +1.31 | -0.81 | +0.22 |
| UHM LENGTH | -4.37 | +22.64 | +19.23 | +729.92 | +1.82 | +1.21 | -12.91 | -7.54 | +256.20 | +1837.3 | +60.10 |
| M/UHM UNIFORMITY | +0.01 | +4.00 | +2.02 | +94.51 | +0.09 | +0.02 | +1.31 | +1.99 | +2.62 | -116.86 | +4.03 |
| MICRONAIRE | -0.11 | -8.04 | -4.08 | -190.41 | -0.57 | -0.38 | +2.64 | +0.87 | -16.39 | +156.20 | -9.25 |
| HVI 1/8" GAGE STRENGTH | -0.01 | +3.68 | +1.79 | +85.21 | +0.03 | +0.09 | -0.86 | +0.10 | +7.17 | -17.65 | +2.09 |
| STANDARD ERROR OF ESTIMATE | 0.96 | 6.51 | 3.24 | 149.17 | 0.38 | 0.40 | 7.90 | 7.47 | 62.89 | 227.89 | 5.83 |

TABLE 13.--CONTINUED

| COMBINATIONS OF INDEPENDENT VARIABLES | DEPENDENT VARIABLES | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | PICKER & CARD WASTE | STRENGTH | | | ELONGATION | | APPEARANCE | | NEPS | | SPINNING POTENTIAL |
| | | 22s | 50s | BR. FACTOR | 22s | 50s | 22s | 50s | 22s | 50s | |
| GRAYNESS (Rd), YELLOWNESS (+b), TRASH GRADE, UHM LENGTH, M/UHM UNIFORMITY, MICRONAIRE, AND HVI 1/8" GAGE STRENGTH: | | | | | | | | | | | |
| R-SQUARE | 0.39 | 0.80 | 0.79 | 0.80 | 0.34 | 0.31 | 0.16 | 0.17 | 0.20 | 0.28 | 0.75 |
| CONSTANT (a) | +22.34 | -379.33 | -199.70 | -9165.07 | -2.98 | +2.52 | -41.77 | -125.30 | -683.70 | +8576.4 | -380.41 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | | | | | | | |
| GRAYNESS (Rd) | -0.07 | +0.71 | +0.25 | +14.15 | +0.02 | +0.00 | +0.21 | +0.12 | +2.11 | -1.45 | +0.33 |
| YELLOWNESS (+b) | -0.18 | +0.09 | -0.20 | -4.03 | -0.00 | -0.11 | +4.08 | +2.03 | +0.98 | -26.29 | -0.22 |
| TRASH GRADE | +0.53 | -0.58 | +0.04 | -5.47 | +0.11 | -0.01 | +2.13 | +2.85 | -5.57 | -30.81 | -0.23 |
| UHM LENGTH | -4.16 | +27.03 | +21.23 | +828.16 | +2.23 | +0.89 | +7.22 | +3.81 | +272.76 | +1710.2 | +60.78 |
| M/UHM UNIFORMITY | -0.07 | +4.19 | +2.03 | +96.95 | +0.08 | +0.02 | +1.17 | +1.82 | +3.30 | -115.61 | +4.13 |
| MICRONAIRE | -0.08 | -6.86 | -3.68 | -167.39 | -0.50 | -0.41 | +4.09 | +2.64 | -15.55 | +134.78 | -8.63 |
| HVI 1/8" GAGE STRENGTH | -0.01 | +3.61 | +1.74 | +83.36 | +0.03 | +0.09 | -1.21 | -0.02 | +6.67 | -16.40 | +2.09 |
| STANDARD ERROR OF ESTIMATE | 0.98 | 6.66 | 3.24 | 150.40 | 0.37 | 0.40 | 7.75 | 7.37 | 63.13 | 228.84 | 5.91 |
| * * * * * * * * * * * * | | | | | | | | | | | |
| GRAYNESS (Rd), YELLOWNESS (+b), NON-LINT CONTENT, UHM LENGTH, M/UHM UNIFORMITY, MICRONAIRE, STEL. 1/8" GAGE STRENGTH, STEL. ELONGATION, FMT FINENESS, FMT MATURITY, AND SUGAR: | | | | | | | | | | | |
| R-SQUARE | 0.54 | 0.87 | 0.85 | 0.86 | 0.45 | 0.32 | 0.19 | 0.17 | 0.27 | 0.30 | 0.82 |
| CONSTANT (a) | +16.08 | -191.07 | -121.20 | -5131.71 | +0.67 | +1.74 | -22.78 | -41.53 | -601.92 | +7788.6 | -237.87 |
| REGRESSION COEFFICIENTS (b's) FOR: | | | | | | | | | | | |
| GRAYNESS (Rd) | -0.03 | -0.12 | -0.05 | -2.41 | -0.00 | +0.01 | -0.14 | -0.38 | +2.92 | +8.69 | -0.33 |
| YELLOWNESS (+b) | -0.16 | +0.39 | +0.05 | +5.56 | -0.07 | -0.07 | +2.42 | +0.51 | +8.97 | -13.33 | -0.35 |
| NON-LINT CONTENT | +0.69 | -0.96 | -0.29 | -17.73 | -0.02 | +0.01 | -1.73 | -0.59 | +8.86 | +51.96 | -1.00 |
| UHM LENGTH | -1.85 | +38.14 | +27.59 | +1109.32 | +1.80 | +1.99 | -18.44 | -17.81 | +421.64 | +1861.9 | +61.90 |
| M/UHM UNIFORMITY | -0.05 | +2.32 | +1.29 | +57.71 | +0.06 | +0.01 | +1.51 | +1.33 | +4.13 | -117.33 | +2.92 |
| MICRONAIRE | -0.62 | -1.41 | -0.58 | -29.92 | +0.05 | +0.06 | -0.38 | +0.17 | +50.03 | +250.62 | -4.65 |
| STEL. 1/8" GAGE STRENGTH | -0.11 | +4.69 | +2.16 | +105.55 | +0.06 | +0.07 | -0.72 | +1.06 | +1.08 | -18.56 | +2.94 |
| STEL. ELONGATION | -0.21 | -0.22 | -0.40 | -12.40 | +0.24 | +0.15 | +2.59 | +1.28 | -25.44 | -46.23 | -0.58 |
| FMT FINENESS | +0.01 | -0.16 | -0.09 | -3.97 | -0.01 | -0.01 | +0.07 | +0.09 | -1.79 | -1.81 | -0.14 |
| FMT MATURITY | +4.17 | -0.53 | -6.08 | -157.91 | -2.04 | -2.01 | +11.07 | +1.20 | -182.28 | -253.05 | -0.13 |
| SUGAR | +0.48 | +8.79 | -0.00 | +96.63 | +0.84 | -0.13 | +4.38 | +4.96 | +49.81 | -107.83 | +7.62 |
| STANDARD ERROR OF ESTIMATE | 0.86 | 5.55 | 2.83 | 127.67 | 0.35 | 0.40 | 7.73 | 7.47 | 61.19 | 229.13 | 5.07 |

## DESCRIPTION OF STATISTICS USED IN ANALYSIS

Some of the statistical concepts used in this study may be unfamiliar to many who will find the information in this report useful. Results reported in this study include the means, standard deviations, simple correlations, regression equations and coefficients of determination (R-squares). Formulas for each of these results may be found in any good textbook on statistical correlation. However, for those not familiar with these concepts, the following common language explanation is given for each item as it is used in this report:

A. MEAN VALUE is the simple arithmetical average of each measured property for the spinning lots included in the study.

B. STANDARD DEVIATION is a measure of dispersion around the mean value expressed in the same terms as the variable. For a normal distribution, approximately 68 percent of the values will be within plus or minus one standard deviation of the mean; 95 percent within plus or minus two standard deviations; and nearly all values will be within plus or minus three standard deviations.

> Example: (From Table 9, page 62) The mean or average HVI upper half mean length for the short staple cottons is 0.962 inch. The standard deviation is 0.041 inch. This indicates that 68 percent of the lots tested in the short staple group should have a fiber length between 0.921 and 1.003 inch. The fiber length of 95 percent of the lots tested fall between 0.880 and 1.044 inches and nearly all would be between 0.839 and 1.085 inches.

C. SIMPLE CORRELATION COEFFICIENT (r) is a measure of the linear relationship between two variables, i.e., how one variable is associated with the other. A correlation coefficient of 0 indicates no relationship, and 1.0 indicates a perfect relationship. A plus sign before the correlation coefficient indicates that the value of both variables change in the same direction, whereas a minus sign indicates that they change in opposite directions.

> Example: (From Table 11, page 69, line 1) The simple correlation coefficient of the grade index with picker and card waste is -.59. This indicates that grade and picker and card waste are inversely related, i.e., as one goes up or down, the other goes in the opposite direction.

D. REGRESSION EQUATION or prediction equation is used to estimate changes in the dependent variable which will result from changes in the independent variable or variables. It is written:

$$Y = a + b_1 X_1 + b_2 X_2 + \ldots + b_n X_n$$

where Y is the dependent variable and the X's are the independent variables.

The constant "a" indicates the starting point or height of the regression line when it is to be plotted on a graph or used in calculating changes in the dependent variable. The regression coefficient "b" indicates the directional change in the dependent variable that is associated with changes in the independent variable. The spread or scatter of the data around the regression line is measured by the standard error. The standard error has the same relationship to the regression line as the standard deviation has to the mean value (see paragraph B, above).

Example: (From Table 13, page 74) Using 22s yarn strength as the dependent variable and grade plus HVI measurement as the independent variables, the constant, regression coefficients and standard error for the regression equation are:

| | |
|---|---|
| Constant (a) | -345.32 |
| Regression Coefficients (b): | |
| Grade | +0.46 |
| UHM Length | +22.64 |
| M/UHM Uniformity | +4.00 |
| Micronaire | -8.04 |
| HVI 1/8" Gage Strength | +3.68 |
| Standard Error | +/-6.51 |

With regression coefficients (b's) of +0.46 for grade, +22.64 for HVI length, +4.00 for HVI uniformity, -8.04 for mike and +3.68 for HVI 1/8-inch gage strength, the following average conditions should exist:

(1) With any unit changes (1.0 in grade), yarn strength should change 0.46 pounds in the same direction.

(2) With any unit changes (0.01 in length), yarn strength should change 0.23 pounds in the same direction.

(3) With a 1.0 unit increase in uniformity, yarn strength should increase 4.0 pounds.

(4) If the mike increases 0.1 unit, the yarn strength should decrease 0.8 pounds.

(5) With a 1.0 unit increase in fiber strength, yarn skein strength should increase 3.7 pounds.

D. REGRESSION EQUATION (continued)

Expressing the equation algebraically:

$$\begin{aligned}\text{Yarn strength 22s (lbs)} = {} & -345.32 + 0.46(\text{grade index}) + 22.64(\text{HVI length}) \\ & + 4.00(\text{HVI uniformity}) - 8.04(\text{micronaire}) \\ & + 3.68(\text{HVI 1/8-inch gage strength})\end{aligned}$$

To predict the yarn strength from a bale of cotton with a grade of Middling (100 grade index), a length of 1.05 inches, a uniformity of 80, a micronaire of 4.0 and a strength of 25 grams per tex, set up and solve the equation as follows:

$$\begin{aligned}\text{Yarn strength (lbs)} = {} & -345.32 + 0.46(100) + 22.64(1.05) \\ & + 4.00(80) - 8.04(4.0) + 3.68(25)\end{aligned}$$

$$\text{Yarn strength (lbs)} = 104.29$$

The standard error can be used to establish a lower and upper limit about the predicted value. In this example, the standard error of 6.51 indicates that yarn strength from a bale of cotton with these fiber properties should be 104.29 +/- 6.51 pounds or between 98 and 111 pounds 68 percent of the time.

Regression equations are given in the tables for simple and multiple relationships. Equations for simple relationships may be calculated by using the formula:

$$Y = a + bX$$

$$\text{where } a = \text{Mean } Y - b\ (\text{Mean } X)$$

$$b = r \frac{\text{Std. Dev. } Y}{\text{Std. Dev. } X}$$

Estimating an equation with more than one independent variable is more complex. Most statistical textbooks describe the method for estimating multivariate equations.

E. R-SQUARE ($R^2$) when multiplied by 100 will give the coefficient of determination. The resulting percentage is the amount of the variation in the dependent variable explained by the independent variable(s). In the above example, $R^2 = .81$; therefore, 81% of the variation in yarn strength is explained by grade, UHM length, M/UHM uniformity, micronaire and HVI 1/8-inch gage strength. The remaining variation in yarn strength (19%) is unexplained by the five independent variables in this equation.

E. R-SQUARE (continued)

For simple regressions (equations containing one independent variable) the coefficient of determination can be obtained easily by squaring the simple correlation coefficient (r) and multiplying by 100.

The multiple correlation coefficient (R) can be obtained by taking the square root of R-square. This coefficient is a measure of the linear relationship between one dependent variable and one or more independent variables. It has no plus or minus sign because one independent variable may contribute positively, and another negatively, in explaining the variation in the dependent variable. The multiple R may fall between 0 and 1.0, with 0 indicating no relationship and 1.0 a perfect relationship.

## INTERPRETING STATISTICAL DATA

In referring to the data presented in the tables of this report, it is well to keep in mind several factors which influence the results and could lead to erroneous conclusions.

Results obtained from regression analysis are significantly influenced by the specific variables included in an equation and by their number. This is mainly due to interrelationships of fiber properties. As interrelated properties (independent variables) are added to an equation, the specific contribution of a given property may decrease sharply while at the same time the overall correlation will increase. For example, a correlation of staple length with yarn strength usually shows a good relationship, with a large amount of the variation in yarn strength explainable by differences in staple length. But as other measures are taken into consideration, particularly fiber strength at 1/8-inch gage, the importance of staple length in explaining the total variation in yarn strength decreases rather sharply; even though the total variation explained is increased. This situation occurs because fiber strength is more closely related to yarn strength than is staple length. Yet when fiber strength is not included in the equation, some of the effects of strength are evidenced through the interrelation of strength and staple length. Perhaps the most important fact to keep in mind is that interpretations are no better than the principles used in the analysis. To estimate the importance of a specific variable, all of the available data should be studied using the appropriate statistical techniques.

## BASIS FOR INTERPRETATION OF TEST RESULTS

The following explanation of the data published in Tables 1 through 8 of this report may be helpful in the interpretation of test results.

### Classification

Classification was made in accordance with the official Cotton Standards for grade and staple length. These results are presented under the usual terms for the individual lots, but the grade values were converted to an index for averaging in the summary tables.

Grade index, as reported in the summary tables, is designed to reflect differences in market value and provides a method for averaging the grade for a number of individual lots. Middling grade is used as the basis of 100, and higher or lower index numbers reflect higher or lower average market values, respectively. Index values for the various grades of upland cotton are shown below.

| GRADE | | GRADE INDEX | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Name | Code | Plus (0) | White (1) | Light Spotted (2) | Spotted (3) | Tinged (4) | Light Gray (6) | Gray (7) |
| Good Middling | (1) | | 105 | 103 | 101 | | 99 | 93 |
| Strict Middling | (2) | | 104 | 102 | 99 | 91 | 98 | 91 |
| Middling | (3) | 102 | 100 | 97 | 93 | 82 | 92 | 84 |
| Strict Low Middling | (4) | 97 | 94 | 89 | 83 | 75 | 85 | 75 |
| Low Middling | (5) | 90 | 85 | 80 | 75 | 68 | | |
| Strict Good Ordinary | (6) | 81 | 76 | 71 | 66 | | | |
| Good Ordinary | (7) | 73 | 70 | | | | | |
| Below Grade | (8) | | 60 | | | | | |

The GRADE of cotton is obtained by evaluating color, leaf and preparation in relation to the official standards. Grade provides an indication of fiber color and the waste content of a sample of cotton. Experience has shown the average relationship between picker and card waste and various grades of upland cotton to be approximately as given in the tabulation shown in the subsequent section on manufacturing waste.

In comparing these average grade figures with the picker and card waste data, it should be understood that variations from the averages for individual samples are attributable to the nature of the extraneous material present in the cotton, the characteristics of the fiber, and whether the grade designation was low because of poor color.

STAPLE LENGTH is the length of a typical portion of the fibers in the samples as determined by the classer or a High Volume Instrument line in comparison with offical standards. Uniformity of fiber length, as well as other fiber properties influences to to some extent the classer's selection of the typical portion of the fibers on which the staple length designation is based. In general, there is a fairly close relationship between the staple length as designated by the classer and the fineness and strength of the yarn that can be manufactured from the cotton. These relationships, however, are also influenced by other fiber properties, the measurement of which will be discussed in the paragraphs which follow.

## Fiber Tests

FIBER LENGTH and length uniformity data were obtained from a Motion Control High Volume Instrument system for short, medium and long staple American upland samples and by the Digital Fibrograph method for the extra long American Pima and upland samples.

The Fiber Length Analyzer on the Motion Control HVI measures the length and length uniformity of a specimen of cotton pneumatically. A prepared specimen is mechanically lowered into an orifice in the Fiber Length Analyzer, where air is pulled around the sample. The specimen is slowly removed from the orifice, causing a change in air pressure. The analyzer determines the upper half mean length and the mean length of the sample by analyzing this change in air pressure.

The upper half mean length is the average length of the longest one-half of the fibers by weight. Upper half mean length is an indicator of yarn strength and spinning efficiency. These length values are closely related to the classer's staple.

Length uniformity is a measure of the degree of uniformity of fibers in a sample. It is expressed as an index of the mean/upper half mean length ratio. Fiber uniformity is related to spinning efficiency, yarn uniformity and yarn strength.

The terms listed below may be helpful in interpreting the results:

| Upper Half Mean Length | | M/UHM Uniformity Index | |
|---|---|---|---|
| Below 0.97 | Short | Below 77 | Very Low |
| 0.97 - 1.10 | Medium | 77 - 79 | Low |
| 1.11 - 1.28 | Long | 80 - 82 | Average |
| Above 1.28 | Extra Long | 83 - 85 | High |
| | | Above 85 | Very High |

Briefly, the Digital Fibrograph method consists of placing representative specimens of cotton at random on a comb or combs, parallelizing the beards of cotton extending from one side of the combs, and scanning these beards photoelectrically on the instrument at three length intervals beginning at 0.15 inch from the teeth of the combs and ending near the outer fringe.

The Digital Fibrograph 2.5 percent span length values reported indicate the length which will be spanned by 2.5 percent of the fibers when they are parallel and randomly distributed. It is also the length where the amount of fibers indicated by the instrument is 2.5 percent of the amount at the starting point of 0.15 inch.

The Digital Fibrograph 50/2.5 uniformity ratio values reported indicate the relative uniformity of fiber length in the samples. They represent the ratios between the 50 percent span length and 2.5 percent span length, expressed as percentages.

The following adjective descriptions will serve to classify cottons from the standpoint of 2.5% span length and fiber length uniformity.

| 2.5 Percent Span Length | | 50/2.5 Uniformity Ratio | |
|---|---|---|---|
| Below 0.97 | Short | Below 40 | Very Low |
| 0.97 - 1.09 | Medium | 40 - 42 | Low |
| 1.10 - 1.28 | Long | 43 - 45 | Average |
| Above 1.28 | Extra Long | 46 - 48 | High |
| | | Above 48 | Very High |

FIBER FINENESS AND MATURITY (reference ASTM D 3818). Fiber fineness or linear density and maturity affect mill processing performance and the quality of the end products. Linear density determines the number of fibers per cross-section for a prescribed yarn number, thereby affecting drafting characteristics, yarn strength, and yarn evenness. Maturity affects processing because immature fibers break easily during processing, have a tendency to form neps, and have a tendency to become entangled around particles of trash and leaf. This makes cleaning more difficult and increases the amount of fiber removed with foreign matter. It adversely affects yarn and fabric appearance, which may appear differently after dyeing.

Several instruments, including the Fibronaire, Micronaire, IIC-Shirley Fineness/Maturity Tester, and Port-Ar, may be used for these tests. This survey reports results from fineness and maturity tests from two of these instruments, the Fibronaire and and IIC-Shirley Fineness/Maturity Tester.

Fiber fineness and maturity in combination were determined by the micronaire test. This is an instrument test which measures the resistance of a plug of cotton to air flow. From 47 to 52 grains of cotton are placed in the instrument specimen holder and compressed to a fixed volume. Air at a known pressure is forced through the specimen and the amount of flow is indicated by a direct reading scale. Readings obtained are relative measures of either the weight per unit length or the cross-sectional size of the fibers. Because the instrument measures may differ from the actual weight per inch, depending upon the fiber characteristics of the sample, the results are reported in terms of "micronaire reading" instead of micrograms per inch. These readings, which are in international use, are taken from the curvilinear scale adopted in 1950. The micronaire reading is now a part of the official standards for upland cotton along with grade and staple length.

The IIC-Shirley Fineness/Maturity Tester (FMT) operates on the dual compression principle.* The instrument registers pressure drop across the specimen under two defined conditions of airflow and sample density. Use of the readings in the following empirically established equations permits the estimation of maturity and fineness.

$$\text{Maturity ratio} = 0.247(P_L)^{0.125}(P_H/P_L)^2$$

$$\text{Fineness, (millitex)} = (6000/P_L)(P_H/P_L)^{1.75}$$

where $P_L$ = pressure drop at lower sample density and higher flow rate

$P_H$ = pressure drop at higher sample density and lower flow rate

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*THE MEANING AND ASSESSEMENT OF COTTON FIBRE FINENESS by H. H. Ramey, Jr., for the Technical Research Division, International Institute for Cotton, 1982, p. 16.

U.S. upland cotton with a maturity ratio falling into the following ranges can be described as:

| Maturity Ratio Ranges | Maturity Description U.S. Upland Cotton |
|---|---|
| 1.00 and more | Very mature |
| 0.95 - 1.00 | Above average |
| 0.85 - 0.95 | Mature |
| 0.80 - 0.85 | Below average |
| 0.70 - 0.80 | Immature |
| Less than 0.70 | Uncommon |

Data Source: THE ORIGIN AND ASSESSMENT OF COTTON FIBRE MATURITY by E. Lord for the Technical Research Division, International Institute for Cotton, 1975, p. 10.

FIBER STRENGTH is an important factor in determining yarn strength. Cottons with good fiber strength usually give less trouble in the manufacturing process than the weak-fibered cottons. Tests for fiber strengths are made with a 1/8-inch spacer between the clamp jaws (1/8-inch gage) using the Stelometer and the Motion Control High Volume Instrument (HVI). The Stelometer also provides a measure of fiber elongation. Comparative tests have shown that the results of the 1/8-inch gage tests are more highly correlated with yarn strength than are the results of zero gage tests.

The results of Stelometer 1/8-inch gage tests are reported in terms of grams per tex in accordance with the recommendations of the American Society for Testing and Materials (ASTM) and the International Standards Organization (ISO). A tex unit is equal to the weight in grams of 1,000 meters of the material. There is a correlation between the 1/8-inch gage strength test results and the fiber length. Short staple cottons tend to have lower average strength values than long staple cottons.

Results for 1/8-inch gage tests are calculated by the use of formulas 1 or 2, depending on the instrument used. Stelometer results are adjusted to Pressley level by use of calibration cottons.

1. Pressley instrument-grams per tex (g/tex) =

$$\frac{\text{breaking load (lb)} \times 6.80}{\text{bundle weight (mg)}}$$

2. Stelometer instrument-grams per tex (g/tex) =

$$\frac{\text{breaking load (kg)} \times 15}{\text{bundle weight (mg)}}$$

The following terms may be applied to fiber strength:

| Descriptive Designation | 1/8-Inch Gage Strength (Grams per Tex) |
|---|---|
| Very Weak | 17 and Below |
| Weak | 18 - 21 |
| Average | 22 - 25 |
| Strong | 26 - 29 |
| Very Strong | 30 and Above |

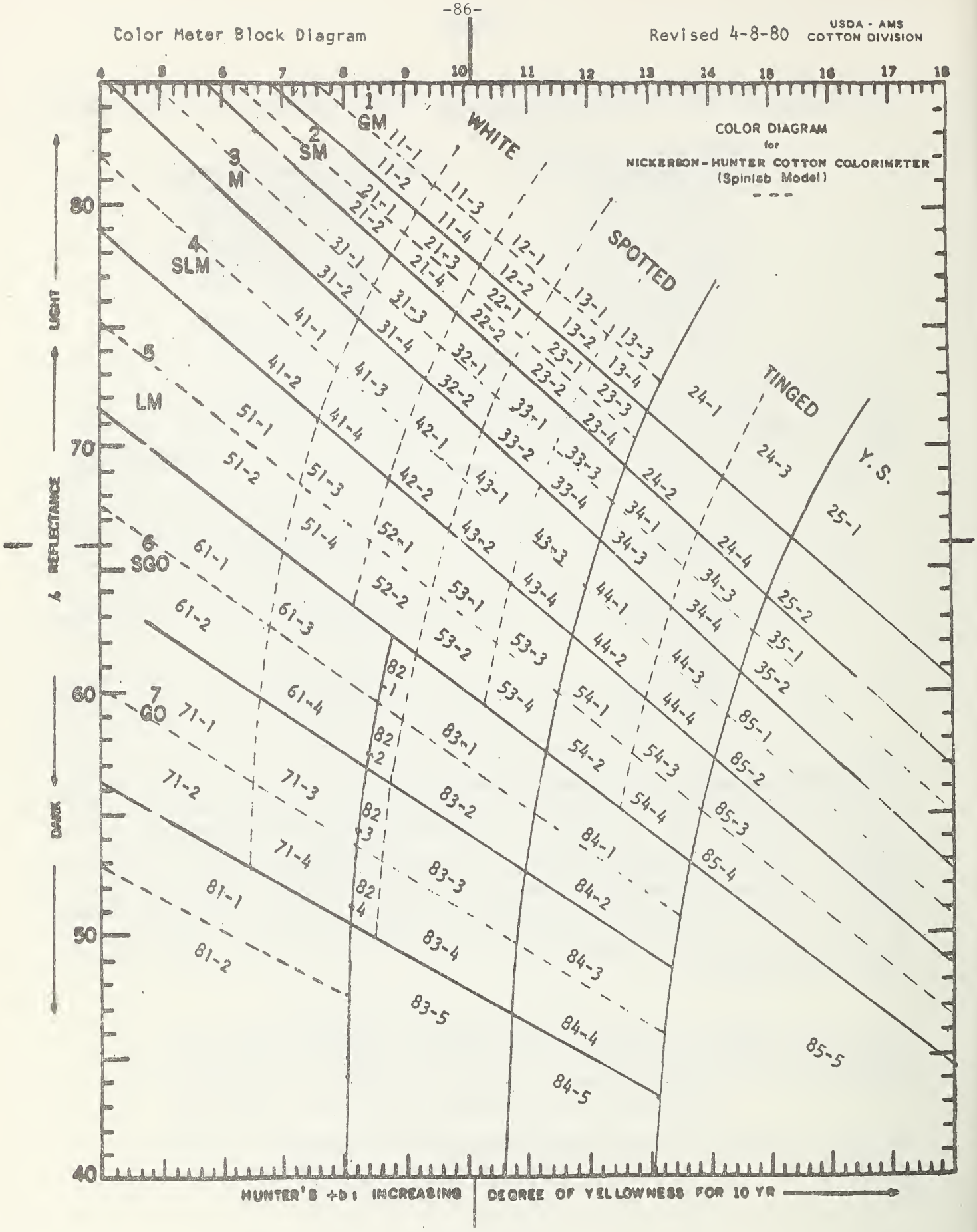
FIBER ELONGATION results were obtained in connection with the 1/8-inch gage fiber strength tests by using the Stelometer instrument. The following adjective ratings will assist in the interpretation of the fiber elongation results reported:

| Descriptive Designation | Fiber Elongation (Percent) |
|---|---|
| Very Low | Below 5.0 |
| Low | 5.0 - 5.8 |
| Average | 5.9 - 6.7 |
| High | 6.8 - 7.6 |
| Very High | Above 7.6 |

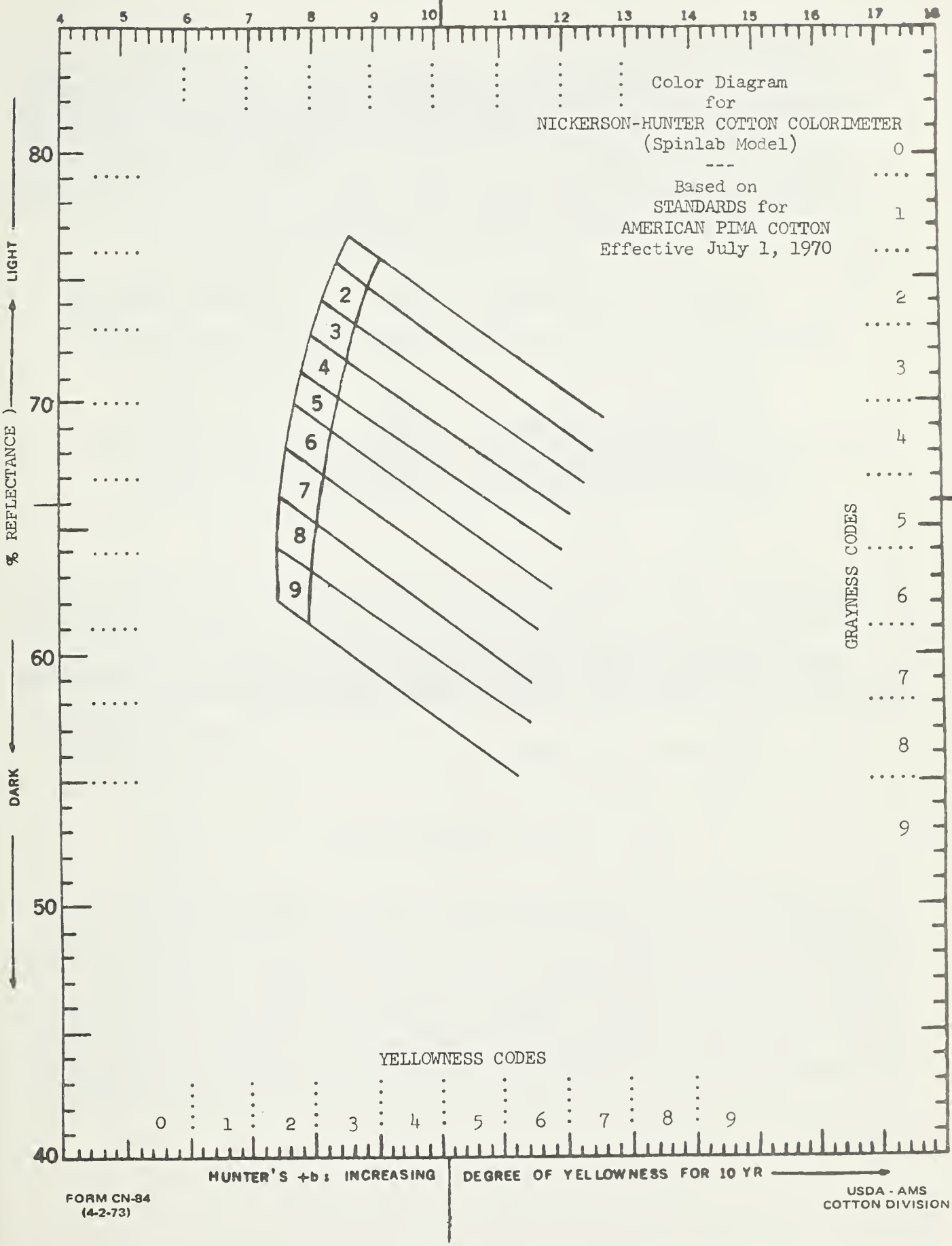
COLOR MEASUREMENTS were made on samples of raw cotton from each lot by using the Nickerson-Hunter Cotton Colorimeter. The basic color values reported are in terms of grayness (Rd) and yellowness (+b) scales designed especially for cotton. GRAYNESS indicates how light or dark the cotton sample is, and YELLOWNESS indicates how much yellow color is in the sample. A three-digit color code is used in place of the single codes for grayness and yellowness used in the past. The color code subdivides each grade into quadrants to denote relative color differences within a grade for a more precise color measurement.

The relationship of these color codes to grayness (Rd) and yellowness (+b) values and to the color of the Universal Grade Standards for upland cotton is shown in Figure 2, page 86.

A color diagram for American Pima cotton is shown in Figure 3, page 87.


Color Meter Block Diagram
Revised 4-8-80
USDA - AMS
COTTON DIVISION
COLOR DIAGRAM
for
NICKERSON-HUNTER COTTON COLORIMETER
(Spinlab Model)
WHITE
SPOTTED
TINGED
Y.S.
1 GM
2 SM
3 M
4 SLM
5 LM
6 SGO
7 GO
% REFLECTANCE
LIGHT
DARK
HUNTER'S +b: INCREASING DEGREE OF YELLOWNESS FOR 10 YR

(Figure 2)


Color Diagram
for
NICKERSON-HUNTER COTTON COLORIMETER
(Spinlab Model)
---
Based on
STANDARDS for
AMERICAN PIMA COTTON
Effective July 1, 1970
% REFLECTANCE
LIGHT
DARK
80
70
60
50
40
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
2
3
4
5
6
7
8
9
GRAYNESS CODES
0 1 2 3 4 5 6 7 8 9
YELLOWNESS CODES
HUNTER'S +b : INCREASING DEGREE OF YELLOWNESS FOR 10 YR
FORM CN-84
(4-2-73)
USDA - AMS
COTTON DIVISION

(Figure 3)

NON-LINT CONTENT for the various lots was determined by the use of the Shirley Analyzer which separates the lint from the foreign matter. The total non-lint values reported include both visible and invisible loss. These results are distinguished from total picker and card waste in that practically no fiber is included, whereas textile mill wastes include appreciable amounts of fiber. Tests performed in previous years show the following average relationship of Shirley Analyzer non-lint to grade:

| American Upland Grade | Code | Average Non-lint Content (Percent) |
|---|---|---|
| Strict Middling | (21) | 1.9 |
| Middling | (31) | 2.3 |
| Strict Low Middling | (41) | 3.1 |
| Low Middling | (51) | 4.3 |
| Strict Good Ordinary | (61) | 5.5 |
| Good Ordinary | (71) | 7.8 |

The following scale has been developed to represent the average non-lint content for grades of American Pima cotton:

| American Pima Grade | Average Non-lint Content (Percent) |
|---|---|
| 2 | 2.8 |
| 3 | 2.9 |
| 4 | 3.4 |
| 5 | 3.9 |
| 6 | 4.7 |
| 7 | 5.8 |
| 8 | 7.7 |
| 9 | 9.1 |

Differences between results obtained for individual lots and the average percentages shown for the grades may be due to one or more of the following reasons:

(1) Grade is a combination of color, leaf and preparation; any one of which may be the limiting factor.

(2) There is a combination of trash allowable within each specific grade.

(3) These data are based on weight and do not take into consideration the nature of the trash, which may be as important as weight in determining the final grade.

SUGAR CONTENT (Potassium Ferricyanide Testing Method) determines the sugar content as based on a quantitative analysis of reducing substances (sugars) on cotton fibers. High sugar content in cotton can be caused by fiber immaturity, insect secretions, or excessive amounts of natural sugars in mature cotton. Cottons with sugar contents higher than 0.3 percent may cause textile processing problems.

## Yarn Processing Tests

Small-scale spinning tests were performed to provide indications of the processing behavior of the various cottons. The percentage of picker and card waste is related to mill turnout. Low percentages of waste indicate high mill turnout. Yarn strength, yarn appearance, and the number of neps in the yarns as measured in these tests are related to similar quality measurements of the mill product. The spinning potential test provides a measure of spinning end breakage and is directly related to the spinning behavior in the mill. High spinning potential yarn (SPY) numbers indicate low end breakage or good spinning in the mill.

MANUFACTURING WASTE reported for a sample of cotton is important because excessive waste increases the cost of cotton products. The percentage of waste extracted by the picking and carding processes in performing a spinning test provides a measure of manufacturing waste. There is an average relationship between this waste and grade as discussed in the previous section on the grade of cotton. The rate at which the cotton is carded, however, affects the picker and card waste values because the more thorough carding action obtained when the carding rate is decreased extracts a larger quantity of waste. The longer staple cottons are generally carded at a lower rate than the shorter cottons in order to obtain acceptable yarn quality. Tests performed in recent years show the following average relationship of picker and card waste to grade:

| American Upland Grade | Code | Average Picker and Card Waste (Percent) |
|---|---|---|
| Strict Middling | (21) | 5.9 |
| Middling | (31) | 6.1 |
| Strict Low Middling | (41) | 6.7 |
| Low Middling | (51) | 7.5 |
| Strict Good Ordinary | (61) | 8.4 |
| Good Ordinary | (71) | 10.0 |

| American Pima Grade | Average Picker and Card Waste (Percent) |
|---|---|
| 2 | 7.3 |
| 3 | 7.4 |
| 4 | 7.7 |
| 5 | 8.0 |
| 6 | 8.4 |
| 7 | 9.1 |
| 8 | 10.2 |
| 9 | 11.0 |

The percentage of waste removed by the comber is reported in addition to the picker and card waste for cottons processed into combed yarn. The shorter staple cottons are processed through the comber with a closer setting than for the longer staple cottons because smaller comber waste percentages are usually extracted from this cotton in commercial practice.

YARN STRENGTH is perhaps the most important and reliable test of yarn quality. Yarn strength not only determines the range of the usefulness of a given cotton, but is also an indication of spinning and weaving performance. The yarn strength test is performed on 120 yard skeins (80 turns on a 1.5 yard reel). Results reported are based on the average of 25 skeins for each yarn number. Yarn strength is reported in terms of skein strength, since studies have shown that such strength values are more closely related to fabric strength as well as to fiber properties than single strand yarn strength. Skein strength data for the two numbers spun are reported for each lot. Length, strength and fineness influence yarn strength more than other fiber properties.

The following descriptive terms may be of help in determining the relative level of yarn strength in this report:

| Kind of Yarn, Staple Length Group and Description | Yarn Skein Strength in Pounds for the Specified Yarn Numbers | |
|---|---|---|
| Carded Yarns: | | |
| Short Staple Group: | 8s | 22s |
| Low | 266 - 286 | 83 - 91 |
| Average | 287 - 307 | 92 - 100 |
| High | 308 - 328 | 101 - 109 |
| Medium Staple Group: | 22s | 50s |
| Low | 85 - 99 | 26 - 32 |
| Average | 100 - 114 | 33 - 39 |
| High | 115 - 129 | 40 - 46 |
| Long Staple Group: | 22s | 50s |
| Low | 89 - 103 | 25 - 33 |
| Average | 104 - 118 | 34 - 42 |
| High | 119 - 133 | 43 - 51 |
| Combed Yarn: | | |
| Long Staple Group: | 22s | 50s |
| Low | 113 - 125 | 37 - 43 |
| Average | 126 - 138 | 44 - 50 |
| High | 139 - 151 | 51 - 57 |
| Extra Long Staple Group: | 50s | 80s |
| Low | 62 - 64 | 31 - 33 |
| Average | 65 - 67 | 34 - 36 |
| High | 68 - 70 | 37 - 39 |

YARN ELONGATION results were obtained in connection with yarn skein strength tests. Elongation in the yarn is highly correlated with fiber elongation. Yarns with high elongation give less end breakage in weaving than yarns with low elongation.

The following descriptive terms may be of some help in determining the relative levels of yarn elongation:

| Kind of Yarn, Staple Length Group and Description | Yarn Elongation in Percent for the Specified Yarn Numbers | |
|---|---|---|
| Carded Yarns: | | |
| Short Staple Group: | 8s | 22s |
| Low | 6.4 - 7.2 | 5.7 - 6.3 |
| Average | 7.3 - 8.1 | 6.4 - 7.0 |
| High | 8.2 - 9.0 | 7.1 - 7.7 |
| Medium Staple Group: | 22s | 50s |
| Low | 5.2 - 5.8 | 3.8 - 4.4 |
| Average | 5.9 - 6.5 | 4.5 - 5.1 |
| High | 6.6 - 7.2 | 5.2 - 5.8 |
| Long Staple Group: | 22s | 50s |
| Low | 5.1 - 5.7 | 3.8 - 4.4 |
| Average | 5.8 - 6.4 | 4.5 - 5.1 |
| High | 6.5 - 7.1 | 5.2 - 5.8 |
| Combed Yarn: | | |
| Long Staple Group: | 22s | 50s |
| Low | 5.9 - 6.3 | 4.6 - 5.0 |
| Average | 6.4 - 6.8 | 5.1 - 5.5 |
| High | 6.9 - 7.3 | 5.6 - 6.0 |
| Extra Long Staple Group: | 50s | 80s |
| Low | 5.1 - 5.5 | 4.7 - 4.9 |
| Average | 5.6 - 6.0 | 5.0 - 5.2 |
| High | 6.1 - 6.5 | 5.3 - 5.5 |

YARN APPEARANCE refers to the relative evenness, smoothness, and freedom from foreign material of the yarn as evaluated by visual comparison of the yarn with the latest standards adopted by the American Society for Testing and Materials (ASTM). Since appearance is very important in many types of cotton products, high yarn appearance grades are desirable. The following descriptive terms may be of help in determining the relative levels of yarn appearance in this report.

| Kind of Yarn, Staple Length Group and Description | Yarn Appearance Index for the Specified Yarn Numbers | |
|---|---|---|
| Carded Yarns: | | |
| Short Staple Group: | 8s | 22s |
| Low | 101 - 111 | 91 - 103 |
| Average | 112 - 122 | 104 - 116 |
| High | 123 - 133 | 117 - 129 |
| Medium Staple Group: | 22s | 50s |
| Low | 73 - 86 | 55 - 63 |
| Average | 87 - 101 | 64 - 72 |
| High | 102 - 116 | 73 - 81 |
| Long Staple Group: | 22s | 50s |
| Low | 84 - 98 | 57 - 69 |
| Average | 99 - 113 | 70 - 82 |
| High | 114 - 128 | 83 - 95 |
| Combed Yarn: | | |
| Long Staple Group: | 22s | 50s |
| Low | 112 - 120 | 88 - 100 |
| Average | 121 - 129 | 101 - 113 |
| High | 130 - 138 | 114 - 126 |
| Extra Long Staple Group: | 50s | 80s |
| Low | 108 - 116 | 96 - 106 |
| Average | 117 - 125 | 107 - 117 |
| High | 126 - 134 | 118 - 128 |

Yarn Appearance Grades

| Grade | Index |
|---|---|
| A | 130 |
| B+ | 120 |
| B | 110 |
| C+ | 100 |
| C | 90 |
| D+ | 80 |
| D | 70 |
| Below D | 60 |

YARN NEPS are reported for the two yarn numbers spun for each lot of cotton. These results were obtained on a Uster Tester II, Model B. This is an electronic instrument which detects and counts neps in yarn. The yarn is drawn through a set of condenser plates, approximately 0.315 in. in length. These plates create an electrical field which counts the neps when the yarn oversteps or understeps present limiting values. Yarn nep tests are made at a constant speed of 100 yards per minute for two and one-half minutes, for a total of 250 yards tested per observation. Four observations are made for each test. This gives a total of 1,000 yards of yarn tested for each spinning lot. Insufficient data has been collected to develop descriptive terms for determining relative levels of yarn neps.

SPINNING POTENTIAL YARN NUMBER indicates the finest yarn number that can be spun from a cotton sample without any end breakage when using specific processing procedures. In performing these tests, new travelers, draft gears, and twist gears are installed for the selected yarn number and it is spun for a 15-minute trial period. The yarn number selected is considered acceptable if there is an end breakage involving 5 to 15 of the 96 spindles employed during the trial run. If end breakages occur on less than 5 or more than 15 of the 96 spindles during the trial period, a different yarn number is selected to be spun for another 15-minute trial period until the acceptable end breakage rate is obtained. The acceptable trial period is also used for a warm-up period which is followed by a one-hour test period. The spinning potential yarn number is calculated from the deviation of the actual yarn number spun from the desired yarn number and the number of spindles with end breakage during the one-hour test run.

The following descriptive terms may be of help in determining the relative level of spinning potential yarn numbers in this report:

Spinning Potential Yarn Number (SPY No.)

| Description | Short Staple Group | Medium Staple Group | Long Staple Group |
|---|---|---|---|
| Low | 34 - 42 | 38 - 50 | 44 - 58 |
| Average | 43 - 51 | 51 - 63 | 59 - 73 |
| High | 52 - 60 | 64 - 76 | 74 - 88 |

TABLE 14.--COTTON: STANDARD MACHINE SETTINGS AND SPECIFICATIONS FOR PROCESSING SPECIFIED STAPLE LENGTH GROUPINGS.

| PROCESS | STAPLE LENGTH GROUP | | | |
|---|---|---|---|---|
| | SHORT | MEDIUM | LONG | EXTRA LONG |
| 1. PICKER | | | | |
| Standard Atmospheric Conditions: | | | | |
| Temperature..... Degrees F. | 75 | 75 | 75 | 75 |
| Relative Humidity..... Percent | 60 | 60 | 60 | 60 |
| Each test lot is processed through a finisher-type picker twice to produce the specified weight of lab..... Ounces Per Yard | 14 | 14 | 14 | 11 |
| Type of Beater..... | Kirschner | Kirschner | Kirschner | Kirschner |
| Beater Speed..... r.p.m. | 1,000 | 1,000 | 1,000 | 1,000 |
| Settings: | | | | |
| Feed Roll to Beater..... Inches | 3/16 | 3/16 | 3/16 | 3/8 |
| Grids to Beater, Top..... Inches | 5/16 | 5/16 | 5/16 | 9/16 |
| Grids to Beater, Bottom..... Inches | 11/16 | 11/16 | 11/16 | 11/16 |
| 2. CARD | | | | |
| Standard Atmospheric Conditions: | | | | |
| Temperature..... Degrees F. | 75 | 75 | 75 | 75 |
| Relative Humidity..... Percent | 60 | 60 | 60 | 60 |
| Picker Lap Fed..... Ounces Per Yard | 14 | 14 | 14 | 11 |
| Sliver Delivered..... Grains Per Yard | 50 | 50 | 50 | 40 |
| Production Rate..... Pounds Per Hour | 12-1/2 | 9-1/2 | 6-1/2 | 4-1/2 |
| Doffer Speed..... r.p.m. | 11 | 8 | 6 | 4 |
| Cylinder Speed..... r.p.m. | 165 | 165 | 165 | 165 |
| Flat Speed..... Inches Per Minute | 2-7/8 | 2-7/8 | 2-7/8 | 2-7/8 |
| Licker-In Speed..... r.p.m. | 435 | 435 | 435 | 435 |
| Clothing: | | | | |
| Cylinder, Hollingsworth Metallic..... Number | 35 | 35 | 25 | 25 |
| Doffer, Hollingsworth Metallic..... Number | 29 | 29 | 29 | 29 |
| Flats, Fillet..... Number | 110 | 110 | 130 | 130 |
| Settings: | | | | |
| Feed Plate to Licker-In..... Inches | 0.010 | 0.010 | 0.010 | 0.017 |
| Mote Knife to Licker-In,Top..... Inches | .012 | .012 | .012 | .012 |
| Mote Knife to Licker-In, Bottom..... Inches | .010 | .010 | .010 | .010 |
| Licker-In Screen to Cylinder..... Inches | .034 | .034 | .034 | .034 |
| Licker-In to Cylinder..... Inches | .007 | .007 | .007 | .007 |
| Flats to Cylinder, Back, Center and Front..... Inches | .010 | .010 | .010 | .010 |
| Back Plate to Cylinder, Top..... Inches | .022 | .022 | .022 | .022 |
| Back Plate to Cylinder, Bottom..... Inches | .022 | .022 | .022 | .022 |
| Front Plate to Cylinder, Top..... Inches | .029 | .029 | .029 | .029 |
| Front Plate to Cylinder, Bottom..... Inches | .012 | .012 | .012 | .012 |
| Doffer to Cylinder..... Inches | .007 | .007 | .007 | .007 |
| Cylinder Screen, Back..... Inches | .022 | .022 | .022 | .022 |
| Cylinder Screen, Center..... Inches | .034 | .034 | .034 | .034 |
| Cylinder Screen, Front..... Inches | 3/16 | 3/16 | 3/16 | 3/16 |
| Doffer Comb to Doffer..... Inches | .017 | .017 | .017 | .017 |
| Crusher Rolls Pressure..... Pounds | 281 | 281 | 281 | 281 |

TABLE 14.--CONTINUED.

| PROCESS | STAPLE LENGTH GROUP | | | |
|---|---|---|---|---|
| | SHORT | MEDIUM | LONG | EXTRA LONG |
| 3. SLIVER LAPER (Combed Only) | | | | |
| Standard Atmospheric Conditions: | | | | |
| Temperature..... Degrees F. | -- | -- | 75 | 75 |
| Relative Humidity..... Percent | -- | -- | 60 | 60 |
| Sliver Fed, 20 Each..... Grains Per Yard | -- | -- | 42 | 42 |
| Lap Delivered..... Grains Per Yard | -- | -- | 808 | 808 |
| Speed..... Yards Per Minute | -- | -- | 46 | 46 |
| 4. COMBER (Model 52) | | | | |
| Standard Atmospheric Conditions: | | | | |
| Temperature..... Degrees F. | -- | -- | 75 | 75 |
| Relative Humidity..... Percent | -- | -- | 60 | 60 |
| Laps Fed, 6 Each..... Grains Per Yard | -- | -- | 808 | 808 |
| Sliver Delivered..... Grains Per Yard | -- | -- | 50 | 40 |
| Production Per Hour..... Pounds | -- | -- | 22 | 22 |
| Setting of Cushion Plate to Detaching Roll..... Inches | -- | -- | .33 | .40 |
| Nominal Waste..... Percent | -- | -- | 16 to 17 | 16 to 17 |
| 5. DRAWING FRAME (Four Over Five) | | | | |
| Standard Atmospheric Conditions: | | | | |
| Temperature..... Degrees F. | 75 | 75 | 75 | 75 |
| Relative Humidity..... Percent | 60 | 60 | 60 | 60 |
| First Process: | | | | |
| Sliver Fed, 8 Each..... Grains Per Yard | 50 | 50 | 50 | 40 |
| Sliver Delivered..... Grains Per Yard | 55 | 53 | 53 | 42 |
| Second Process: | | | | |
| Sliver Fed, 8 Each..... Grains Per Yard | 55 | 53 | 53 | 42 |
| Sliver Delivered..... Grains Per Yard | 60 | 55 | 55 | 44 |
| Speed..... Yards Per Minute | 36 | 36 | 36 | 36 |
| Roll Settings (Center to Center): | | | | |
| First to Third..... Inches | 2-3/4 | 2-3/4 | 2-3/4 | 2-3/4 |
| Third to Fourth..... Inches Plus Fiber Length | 10/16 | 10/16 | 10/16 | 8/16 |
| Fourth to Fifth..... Inches Plus Fiber Length | 13/16 | 13/16 | 13/16 | 12/16 |
| 6. LONG DRAFT ROVING (8 X 4, 1-Apron Type) | | | | |
| Standard Atmospheric Conditions: | | | | |
| Temperature..... Degrees F. | 75 | 75 | 75 | 75 |
| Relative Humidity..... Percent | 60 | 60 | 60 | 60 |
| Sliver Fed..... Grains Per Yard | 60 | 55 | 55 | 44 |
| Roving Delivered..... Hank | 1.30 | 1.80 | 1.80 | 4.25 |
| Spindle Speed..... r.p.m. | 1025 | 1025 | 1025 | 1025 |
| Roll Settings (Center to Center): | | | | |
| First to Second, Standard..... Inches | 2-1/4 | 2-1/4 | 2-1/4 | 2-1/4 |
| Second to Third..... Inches | 1-3/8 | 1-1/2 | 1-5/8 | 1-11/16 to 1-7/8 |

TABLE 14.--CONTINUED

| PROCESS | | STAPLE LENGTH GROUP | | | |
|---|---|---|---|---|---|
| | | SHORT | MEDIUM | LONG | EXTRA LONG |
| 7. LONG DRAFT SPINNING (2-Apron Type) | | | | | |
| Standard Atmospheric Conditions: | | | | | |
| Temperature | Degrees F. | 75 | 75 | 75 | 75 |
| Relative Humidity | Percent | 65 | 65 | 65 | 65 |
| Roving Fed Single | Hank | 1.30 | 1.80 | 1.80 | 4.25 |
| Twist Multiplier | Number | 4.4 | 4.0 | 3.8 | 3.6 |
| Carded Yarns | Number * | 8s & 22s | 22s & 50s | 22s & 50s | -- |
| Combed Yarns | Number | -- | -- | 22s & 50s | 50s & 80s |
| Spindle Speed | r.p.m. ** | 9000 | 9000 | 9000 | 9000 |
| Roll Settings (Center to Center): | | | | | |
| First to Second, Standard | Inches | 2-1/16 | 2-1/16 | 2-1/16 | 2-1/16 |
| Second to Third, Standard | Inches | 1-3/4 | 1-3/4 | 1-3/4 | 1-3/4 |
| 8. OPEN-END SPINNING *** | | | | | |
| Standard Atmospheric Conditions: | | | | | |
| Temperature | Degrees F. | 75 | -- | -- | -- |
| Relative Humidity | Percent | 65 | -- | -- | -- |
| Sliver Fed | Grains Per Yard | 60 | -- | -- | -- |
| Twist Multiplier | Number | 4.5 | -- | -- | -- |
| Carded Yarns | Number | 8s | -- | -- | -- |
| Rotor Speed | r.p.m. | 45,000 | -- | -- | -- |
| Rotor Diameter | mm | 46 | -- | -- | -- |
| Opening Roll Speed | r.p.m. | 7200 | -- | -- | -- |

* Additional yarn is spun on a 96-spindle wide gage frame at 9,000 r.p.m. spindle speed to determine the spinning potential yarn number or the finest yarn number that can be spun without end breakage.

** All standard yarn numbers are spun on narrow gage frames with spindle speeds of 9,000 r.p.m. except for 8s, which are spun on a wide gage frame with spindle speed of 5,500 r.p.m.

*** Barber Coleman Spin-Flex Open-End Frame.